PSYCHOLOGY (PSYC)

PSYC 001 Introduction to Experimental Psychology
This course provides an introduction to the basic topics of psychology including our three major areas of distribution: the biological basis of behavior, the cognitive basis of behavior, and individual and group bases of behavior. Topics include, but are not limited to, neuropsychology, learning, cognition, development, disorder, personality, and social psychology.
For BA Students: Living World Sector
One-term course offered either term
Activity: Lecture
1.0 Course Unit

PSYC 006 The Pursuit of Happiness
What is happiness? Can it be successfully pursued? If so, what are the best ways of doing so? This interactive course will consider various ways of answering these questions by exploring theoretical, scientific, and practical perspectives on flourishing, thriving, and wellness. We will discuss approaches to happiness from the humanities and the sciences and then try them out to see how they might help us increase our own well-being and that of the communities in which we live.
Taught by: Pawelski
One-term course offered either term
Activity: Lecture
1.0 Course Unit
Notes: Course does not count for Psychology major, minor, or consumer psychology minor.

PSYC 097 Psych Abroad
One-term course offered either term
Activity: Lecture
1.0 Course Unit

PSYC 109 Introduction to Brain and Behavior
Introduction to the structure and function of the vertebrate nervous system, including the physiological bases of sensory activity, perception, drive, motor control and higher mental processes. The course is intended for students interested in the neurobiology of behavior. Familiarity with elementary physics and chemistry will be helpful.
For BA Students: Living World Sector
One-term course offered either term
Also Offered As: BIBB 109, BIOL 109
Activity: Lecture
1.0 Course Unit

PSYC 111 Perception
How the individual acquires and is guided by knowledge about objects and events in their environment.
One-term course offered either term
Also Offered As: VLST 211
Prerequisite: PSYC 001 or COGS 001
Activity: Lecture
1.0 Course Unit

PSYC 127 Physiology of Motivated Behaviors
This course focuses on evaluating the experiments that have sought to establish links between brain structure (the activity of specific brain circuits) and behavioral function (the control of particular motivated and emotional behaviors). Students are exposed to concepts from regulatory physiology, systems neuroscience, pharmacology, and endocrinology and read textbook as well as original source materials. The course focuses on the following behaviors: feeding, sex, fear, anxiety, the appetite for salt, and food aversion. The course also considers the neurochemical control of responses with an eye towards evaluating the development of drug treatments for: obesity, anorexia/cachexia, vomiting, sexual dysfunction, anxiety disorders, and depression.
Taught by: Grill
One-term course offered either term
Also Offered As: BIBB 227
Prerequisite: PSYC 001
Activity: Lecture
1.0 Course Unit

PSYC 149 Cognitive Neuroscience
The study of the neural systems that underlie human perception, memory and language, and of the pathological syndromes that result from damage to these systems.
Taught by: Epstein or Mackey
One-term course offered either term
Also Offered As: BIBB 249
Prerequisite: PSYC 001 or COGS 001
Activity: Lecture
1.0 Course Unit

PSYC 151 Language and Thought
This course describes current theorizing on how the human mind achieves high-level cognitive processes such as using language, thinking, and reasoning. The course discusses issues such as whether the language ability is unique to humans, whether there is a critical period to the acquisition of a language, the nature of conceptual knowledge, how people perform deductive reasoning and induction, and how linguistic and conceptual knowledge interact.
Taught by: Trueswell
One-term course offered either term
Also Offered As: LING 151
Prerequisites: PSYC 001, COGS 001, LING 105, or PSYC 207
Activity: Lecture
1.0 Course Unit

PSYC 160 Personality and Individual Differences
This course provides an introduction to the psychology of personality and individual differences. Many psychology courses focus on the mind or brain; in contrast to those approaches of studying people in general, the focus in this course is on the question "How are people different from each other?" It will highlight research that take a multidimensional approach to individual differences and attempts to integrate across the biological, cognitive-experimental, and social-cultural influences on personality.
One-term course offered either term
Prerequisite: PSYC 001
Activity: Lecture
1.0 Course Unit
PSYC 162 Abnormal Psychology
The concepts of normality, abnormality, and psychopathology; symptom syndromes; theory and research in psychopathology and psychotherapy.
Taught by: Ruscio
One-term course offered either term
Prerequisite: PSYC 001
Activity: Lecture
1.0 Course Unit

PSYC 170 Social Psychology
An overview of theories and research across the range of social behavior from intra-individual to the group level including the effects of culture, social environment, and groups on social interaction.
For BA Students: Society Sector
One-term course offered either term
Prerequisite: PSYC 001
Activity: Lecture
1.0 Course Unit

PSYC 181 Intro to Developmental Psychology
The goal of this course is to introduce both Psychology majors and non-majors majors to the field of Developmental Psychology. Developmental Psychology is a diverse field that studies the changes that occur with age and experience and how we can explain these changes. The field encompasses changes in physical growth, perceptual systems, cognitive systems, social interactions and much more. We will study the development of perception, cognition, language, academic achievement, emotion regulation, personality, moral reasoning, and attachment. We will review theories of development and ask how these theories explain experimental findings. While the focus is on human development, when relevant, research with animals will be used as a basis for comparison.
Taught by: Brannon
One-term course offered either term
Prerequisite: PSYC 001
Activity: Lecture
1.0 Course Unit

PSYC 207 Introduction to Cognitive Science
Cognitive Science is founded on the realization that many problems in the analysis of human and artificial intelligence require an interdisciplinary approach. The course is intended to introduce undergraduates from many areas to the problems and characteristic concepts of Cognitive Science, drawing on formal and empirical approaches from the parent disciplines of computer science, linguistics, neuroscience, philosophy and psychology. The topics covered include Perception, Action, Learning, Language, Knowledge Representation, and Inference, and the relations and interactions between such modules. The course shows how the different views from the parent disciplines interact, and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories, and provides an introduction to some of the main directions of current research in the field. It is a requirement for the BA in Cognitive Science, the BAS in Computer and Cognitive Science, and the minor in Cognitive Science, and it is recommended for students taking the dual degree in Computer and Cognitive Science.
Taught by: Brainard/Ungar
One-term course offered either term
Also Offered As: CIS 140, COGS 001, LING 105, PHIL 044
Prerequisites: An Introductory Course in Computer Science, Linguistics, Neuroscience, Philosophy, or PSYC 001
Activity: Lecture
1.0 Course Unit

PSYC 217 Visual Neuroscience
An introduction to the scientific study of vision, with an emphasis on the biological substrate and its relation to behavior. Topics will typically include physiological optics, transduction of light, visual thresholds, color vision, anatomy and physiology of the visual pathways, and the cognitive neuroscience of vision.
Taught by: Stocker
Course usually offered in spring term
Also Offered As: BIBB 217, VLST 217
Prerequisite: PSYC 109
Activity: Lecture
1.0 Course Unit

PSYC 225 Drugs, Brain, and Mind
The course will begin with a review of basic concepts in pharmacology: routes of drug administration, drug metabolism, the dose response curve, tolerance, and sensitization. Following a brief overview of cellular foundations of neuropharmacology (cell biology, synaptic and receptor function), the course will focus on various classes of drugs used to treat neuropsychiatric disorders including, among others, depression, schizophrenia, and anxiety. We will additionally consider mechanisms mediating the mind-altering, addictive and neurotoxic effects of abused drugs.
Taught by: Kane
Course usually offered in spring term
Also Offered As: BIBB 270
Prerequisite: PSYC 109 or BIBB 109
Activity: Lecture
1.0 Course Unit

PSYC 231 Evolution of Behavior: Animal Behavior
The evolution of social behavior in animals, with special emphasis on group formation, cooperation among kin, mating systems, territoriality and communication.
One-term course offered either term
Also Offered As: BIBB 231, BIOL 231
Prerequisite: PSYC 001 or BIOL 102 or COGS 001
Activity: Lecture
1.0 Course Unit

PSYC 235 Psychology of Language
This course describes the nature of human language, how it is used to speak and comprehend, and how it is learned. The course raises and discusses issues such as whether language ability is innate and unique to humans, whether there is a critical period for the acquisition of a language, and how linguistic and conceptual knowledge interact.
Taught by: Dahan
One-term course offered either term
Prerequisite: PSYC 151 or LING 001
Activity: Lecture
1.0 Course Unit

PSYC 239 Neuroendocrinology
This course is designed to examine the various roles played by the nervous and endocrine systems in controlling both physiological processes and behavior. First, the course will build a foundation in the concepts of neural and endocrine system function. Then we will discuss how these mechanisms form the biological underpinnings of various behaviors and their relevant physiological correlates.
Taught by: Flanagan-Cato
One-term course offered either term
Prerequisite: PSYC 109
Activity: Lecture
1.0 Course Unit
**Psychology (PSYC)**

**PSYC 247 Neuroscience and Society**
Cognitive, social, and affective neuroscience have made tremendous progress in the last two decades. As this progress continues, neuroscience is becoming increasingly relevant to all of the real-world endeavors that require understanding, predicting, and changing human behavior. In this course we will examine the ways in which neuroscience is being applied in law, criminal justice, national defense, education, economics, business, and other sectors of society. For each application area we will briefly review those aspects of neuroscience that are most relevant, and then study the application in more detail.

Taught by: Gerstein

One-term course offered either term

Also Offered As: PSYC 549

Prerequisite: PSYC 109 or PSYC 149

Activity: Lecture

1.0 Course Unit

**PSYC 253 Judgment and Decisions**
Thinking, judgment, and personal and societal decision making, with emphasis on fallacies and biases.

One-term course offered either term

Also Offered As: PPE 153

Prerequisite: One semester of statistics or microeconomics

Activity: Lecture

1.0 Course Unit

**PSYC 265 Behavioral Economics and Psychology**
This course will introduce you to the study of choice, and will examine in detail what we know about how people make choices, and how we can influence these choices. It will utilize insights from psychology and economics, and will apply these insights to domains including consumer choice, risky decision making, and presocial decision making.

Taught by: Bhatia

One-term course offered either term

Also Offered As: PPE 313

Prerequisites: Microeconomics and PSYC 001

Activity: Lecture

1.0 Course Unit

**PSYC 266 Introduction to Positive Psychology**
An introduction to the study of positive emotions, positive character traits, and positive institutions. The positive emotions consist of emotions about the past (e.g., serenity, satisfaction, pride), about the future (e.g., hope, optimism, faith), and emotions about the present (pleasure and gratification). The distinction among the pleasant life, the good life, and the meaningful life is drawn. The positive traits include wisdom, courage, humanity, justice, temperance, and spirituality, and the classification of these virtues is explored. The positive institutions are exemplified by extended families, free press, humane leadership, and representative government.

Course usually offered in spring term

Prerequisite: PSYC 001

Activity: Lecture

1.0 Course Unit

**PSYC 272 Evolutionary Psychology**
This course introduces the field of evolutionary psychology, which is an approach to the study of human behavior. We will consider the theoretical underpinnings of the field, including evolutionary theory, development, kinship, and adaptations for social life, and will sample some of the recent empirical contributions to this growing area.

One-term course offered either term

Prerequisite: PSYC 001

Activity: Lecture

1.0 Course Unit

**PSYC 275 Introduction to Political Psychology**
This course will explore psychological approaches to understanding political beliefs, attitudes, and actions at the levels of both individual citizens and national leaders. It will also explore the possibility that psychological science itself is not immune to the political debates swirling around it. Specific topics will include: the workings of belief systems (and their power to shape what we “see”), cognitive biases (and their power to cause miscalculations), sacred values and their role in stabilizing belief systems and social interaction, personality and ideology (the linkages between the personal and the political), and clashing conceptions of morality and distributive and corrective justice (striking variations among people in what they consider to be fair). We shall also explore some topics that have sparked controversy in the psychological research literature and that tend to polarize opinion along political lines, including work on intelligence and unconscious bias.

Taught by: Tetlock

One-term course offered either term

Also Offered As: PSYC 001 or COGS 001

Activity: Lecture

1.0 Course Unit

Notes: NOTE: Students who are more interested in business-related issues may want Wharton 276x which is a modified version of this course specifically for Wharton undergraduates.

**PSYC 280 Developmental Psychology: Social and Emotional Development**
This course will cover theory and research related to the development of attachment, emotional regulation, peer and intimate relationships, personality, moral reasoning, and emotional and behavioral disorders. The course will emphasize the degree to which family, peer, and community contexts influence development from infancy into adulthood. Efforts will be made to integrate biological and environmental accounts of development across the lifespan.

One-term course offered either term

Prerequisite: PSYC 001

Activity: Lecture

1.0 Course Unit

**PSYC 281 Cognitive Development**
What infants and young children come to know about the world, and how they learn it. Topics will include changes in children’s thinking, perceptual development, language acquisition, and current theories of cognitive development.

Taught by: Swingley

One-term course offered either term

Prerequisite: PSYC 001 or COGS 001

Activity: Lecture

1.0 Course Unit

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PSYC 311 Research Experience in Perception
In this research course, students will begin by first replicating earlier experiments to measure human visual memory capacity. After several class discussions to discuss ideas, each student will design and conduct their own experiment to further investigate visual and/or familiarity memory.
Taught by: Rust
One-term course offered either term
Also Offered As: VLST 212
Prerequisites: One semester of statistics, and one of the following: PSYC 111, 149, 151, 217, or permission of instructor.
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required. Undergraduates only.

PSYC 351 Research Experience in Cognitive Psychology
Students will work in small groups to develop, empirically test, and report on a research question in the field of cognitive psychology. Through this process, students will learn how to conduct and report a psychological study, including the appropriate statistical tests. Class discussions will help students craft their projects, and in-class presentations will provide the opportunity to develop and refine presentation skills. Psychology majors only. Class size is limited to 16 students.
Taught by: Weisberg
One-term course offered either term
Prerequisites: One semester of statistics.
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required. Psych majors only.

PSYC 362 Research Experience in Abnormal Psychology
PSYC 362-301 is a two-semester course starting in the Fall. Class size limited to 8 students.
Taught by: Dr. Melissa Hunt
Prerequisites: PSYC 162 and one semester of statistics. Psych majors only. Instructor permission required.
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required. Psych majors only.

PSYC 362-301 is a two-semester course starting in the Fall.

PSYC 370 Research Experience in Social Psychology
In this course students will work in small groups to develop, empirically test, and report on a research question within one of the domains of social psychology. Depending on the nature of the project, students will employ survey, experimental, or observational research methodology, and learn how to conduct and report the appropriate statistical tests with Excel and/or SPSS (typically, correlations, t-tests, ANOVA and ANCOVA, multiple regression, factor analysis, and measures of reliability). Class discussions will help students craft their projects, and in-class presentations will provide the opportunity to develop and refine presentation skills. Psychology majors only. Class size is limited to 12 students.
Taught by: Royzman
Prerequisites: PSYC 170 AND one semester of statistics.
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required. Psychology majors only.

PSYC 380 Research Exp Develop Psy
Activity: Seminar
1.0 Course Unit

PSYC 399 Individual Empirical Research
Individual research involving data collection. Students do independent empirical work under the supervision of a faculty member, leading to a written paper. Normally taken in the junior or senior year.
One-term course offered either term
Activity: Independent Study
1.0 Course Unit
Notes: Dept permission required

PSYC 400 Senior Honors Seminar in Psychology
Open to senior honors candidates in psychology. A two-semester sequence preparation the selection of an honors thesis in psychology. Students will present their work in progress and develop skills in written and oral communication of scientific ideas.
Taught by: Thompson-Schill
Prerequisite: acceptance into the Honors Program in Psychology
Activity: Seminar
0.5 Course Units
Notes: Dept permission required

PSYC 421 Neurobiology of Learning and Memory
This advanced course focuses on the current state of our knowledge about neurobiological basis of learning and memory. Students will explore the molecular and cellular basis of learning invertebrates and vertebrates from a behavioral and neural perspective.
Taught by: Gerstein
One-term course offered either term
Also Offered As: BIBB 442, BIOL 442, NGG 575
Activity: Seminar
1.0 Course Unit

PSYC 429 Big Data, Memory, and the Human Brain
Advances in brain recording methods over the last decade have generated vastly more brain data than had been collected by neuroscientists during the previous century. To understand the human brain, scientists must now use computational methods that exploit the power of these huge data sets. This course will introduce you to the use of big data analytics in the study of human memory and its neural basis. Through hands-on programming projects, we will analyze multi-terabyte data sets both to replicate existing phenomena and to make new discoveries. Although the course has no formal neuroscience or psychology prerequisites it does require CIS121 and Python experience. Because of the heavy computing resources required to perform the assignments enrollment is limited to 15 students and there is a required course application. https://forms.gle/CfeogYQm5mwUBk3x7
Taught by: Kahana
Also Offered As: BIBB 429
Prerequisite: CIS121 & Python experience
Activity: Seminar
1.0 Course Unit
Notes: Instructor permission required. Application form can be found here: https://forms.gle/CfeogYQm5mwUBk3x7

PSYC 431 Seminar in Animal Cognition
The aim of this course will be to provide advanced undergraduates with a detailed review of a number of research areas in behavioral ecology. One-term course offered either term
Also Offered As: BIBB 432
Prerequisite: PSYC 231/Biol 231/ BIBB 231
Activity: Seminar
1.0 Course Unit
**PSYC 434 Computational Neuroscience Lab**

This course will focus on computational neuroscience from the combined perspective of data collection, data analysis, and computational modeling. These issues will be explored through lectures as well as Matlab-based tutorials and exercises. The course requires no prior knowledge of computer programming and a limited math background, but familiarity with some basic statistical concepts will be assumed. The course is an ideal preparation for students interested in participating in a more independent research experience in one of the labs on campus. For the Spring 2019 semester, the course will focus on the topic of visual memory.

Taught by: Nicole Rust
Course usually offered in spring term
Also Offered As: BIBB 334
Prerequisite: BIBB 109
Activity: Laboratory
1.0 Course Unit

**PSYC 435 Psycholinguistics**

Taught by: Dahan
Prerequisites: PSYC 151, or PSYC 235, or LING 001, or permission of instructor.
Activity: Seminar
1.0 Course Unit

**PSYC 439 Neuroendocrinology Seminar**

This course is designed to examine the various roles played by the nervous and endocrine systems in controlling both physiological processes and behavior. First, the course will build a foundation in the concepts of neural and endocrine system function. Then, we will discuss how these mechanisms form the biological underpinnings of various behaviors and their relevant physiological correlates. We will focus on sexual and parental behaviors, stress, metabolism, neuroendocrine-immune interactions, and mental health.

Taught by: Flanagan-Cato
One-term course offered either term
Also Offered As: BIBB 460
Prerequisite: PSYC 109
Activity: Seminar
1.0 Course Unit

**PSYC 447 Neurological Insights into Cognition and Behavior**

Our modern understanding of the brain began with very humble foundations. Long before transgenic mice, MRI scans, and neuronal recordings, most knowledge about brain function was based on clinical observations of human patients with neurological lesions. This advanced seminar will focus on the cognitive neuroscience of perception, emotion, language, and behavior -- through the unique perspective of real-life patients -- to illustrate fundamental concepts of brain function. Tuesday classes will explore different cognitive neuroscience topics through student presentations and discussion. Thursday classes will involve observing medical history taking and examination of a patient with cognitive deficits pertinent to the Tuesday topic, with opportunity for students to interact with the patient. Pre-requisites: Instructor permission required and PSYC 109/BIBB 109.

Taught by: Gottfried
One-term course offered either term
Prerequisites: Instructor permission is required. Prerequisite: PSYC 109/BIBB 109.
Activity: Seminar
1.0 Course Unit
Notes: Juniors and Seniors only. Permission of instructor required. Prerequisite: PSYC 109/BIBB 109.

**PSYC 449 Seminar in Cognitive Neuroscience**

Topics vary each semester. PSYC 449 (Gerstein) Neuroscience for Policymakers: This seminar will provide an overview of the neuroscience behind some of the most relevant issues in public health policy today. We will examine the primary scientific literature as well as delve into lay articles about the science and policy surrounding each issue. /PSYC 449 (Epstein) Consciousness: Consciousness is our subjective experience of the world, including both perceptions and felt internal states. In this seminar, we will explore the the burgeoning scientific literature on the neural basis of consciousness. We will focus in particular on three topics: What are the neural systems underlying visual awareness? What are the mechanisms that control the progression of conscious contents to create our stream of thought? What is the relationship between consciousness and behavior? /PSYC 449 (Jenkins) The Social Brain: This seminar examines the cognitive and neural mechanisms that enable humans to predict and understand people's behavior. We will be propelled throughout the course by fundamental questions about the human social brain. For example, why are humans so social? Does the human brain have specialized processes for social thought? Consideration of these questions will involve advanced treatment of a range of topics. Prequisite: PSYC 149
Activity: Seminar
1.0 Course Unit
Notes: PSYC 449-601 is an LPS course. PSYC 449-301,-302 and -303 are Psych Dept. courses.

**PSYC 453 Seminar in Decision Making: Judgment and Decisions**

This seminar will be a series of engaging discussions on a variety of topics that are important to the field of behavioral decision theory. We'll cover issues such as constructed preferences, loss aversion, nudging, emotions, well-being, other-oriented decisions, intuitive predictions, unethical choices, and more. Students will be asked to present papers and generate ideas for potential research projects each week. Grades will be based on class contributions and a paper that is either a literature review or a careful and detailed proposal for a research project.

Taught by: Mellers
One-term course offered either term
Prerequisite: PSYC 253 or PSYC 265
Activity: Seminar
1.0 Course Unit

**PSYC 449 Seminar in Cognitive Neuroscience**

Topics vary each semester.
Prequisite: PSYC 162
Activity: Seminar
1.0 Course Unit
Notes: Undergraduates only.

**PSYC 462 Seminar in Abnormal Psychology**

Topics vary each semester.
Prequisite: PSYC 262
Activity: Seminar
1.0 Course Unit
Notes: Undergraduates only. 462-601 is an LPS course.

**PSYC 466 Seminar in Positive Psychology**

This intensive, discussion-based seminar focuses on the key research that has shaped Positive Psychology. This seminar will equip students with useful insight and critical analysis about Positive Psychology by emphasizing scientific literacy. The workload for this seminar requires intensive reading. To excel in this seminar, students must be willing to enthusiastically read, dissect, and critique ideas within Positive Psychology. This requires students to articulate various ideas in verbal and written form.

Taught by: Connolly
Course not offered every year
Activity: Seminar
1.0 Course Unit
PSYC 470 Seminar in Social Psychology
Topics vary each semester.
One-term course offered either term
Prerequisite: PSYC 170
Activity: Seminar
1.0 Course Unit
Notes: Undergraduates only.

PSYC 471 Behavioral Biology of Women
A course that explores female behavior focusing on evolutionary, physiological, and biosocial aspects of women's lives from puberty through reproductive processes such as pregnancy, birth, lactation to menopause and old age. Examples are drawn from traditional and modern societies and data from nonhuman primates are also considered.
Taught by: Apicella
One-term course offered either term
Prerequisites: PSYC 272, BIOL 102, ANTH 104, or ANTH 143.
Activity: Seminar
1.0 Course Unit

PSYC 473 Neuroeconomics
This course will review recent research that combines psychological, economic and neuroscientific approaches to study human and animal decision-making. A particular focus will be on how evidence about the neural processes associated with choices might be used to constrain economic and psychological theories of decision-making. Topics covered will include decisions involving risk and uncertainty, reinforcement learning, strategic interactions and games, and social preferences.
Taught by: Kable
One-term course offered either term
Also Offered As: BIIB 473, NGG 706
Prerequisites: PSYC 149, 253, or 265
Activity: Seminar
1.0 Course Unit

PSYC 474 PSYC 474-301: Being Human; PSYC 474-601: Cultural Psychology
This seminar will take an in-depth look at these famous studies (along with the more recent replications) and explore their various psychological, historical, and philosophical ramifications. This course has a number of intellectual goals that go beyond simply rarifying one's understanding of a particular content area (important and generative as it may be). One such a goal is to enable you to think critically (though not disparagingly) about other people's research and theoretical claims that ensue from it, all with the hope that you can then apply the self-same critical acumen to your own future work. Second, this course will offer a hospitable environment for developing (and exchanging) creative ideas of your own. Your work on your individual reaction papers and on the term paper in particular will be a key element in achieving this goal.
Taught by: Royzman
Also Offered As: PPE 477
Prerequisite: PSYC 170
Activity: Seminar
1.0 Course Unit

PSYC 478 CAPSTONE: SOCIAL PSYCHOLOGY
PSYC 480 Seminar in Developmental Psychology
PSYC 480-301 (Brannon): The field of educational neuroscience is an emerging field with the goal of joining knowledge gained from the disciplines of neuroscience, cognitive science, developmental psychology, and education. This interdisciplinary course will focus on how scientific exploration of the mind and brain can inform educational practices. PSYC 480-302 (Connolly): This advanced discussion-based seminar will focus on approaches to success in domains of modern life such as social living and academia. The first portion of this seminar will be a psychology book club where we read various books written by psychology researchers. This will contribute to an ongoing discussion about scientific communication, and the presentation of psychological research to various audiences. From there, students will focus on a specific area of interest, and write a literature review based on contemporary empirical research critiquing their given topic. Students must understand the workload for this seminar requires intensive reading culminating in a large written assignment.
Taught by: Weisberg, Brannon, or Connolly
Prerequisite: PSYC 001
Activity: Seminar
1.0 Course Unit
Notes: Undergraduates only.

PSYC 482 Inside the Criminal Mind
This seminar explores the development of antisocial behavior including psychopathy, aggression, and violence. At its core, this course examines what increases the risk that children will develop behavior problems and go onto more chronic and extreme forms of violence and psychopathic personality that results in harm to others. We will examine psychiatric diagnoses associated with these antisocial behaviors in both childhood and adulthood and how they link to other relevant forms of psychopathology (e.g., substance use, ADHD). We will explore research elucidating the neural correlates of these behaviors, potential genetic mechanisms underlying these behaviors, and the environments that increase risk for these behaviors. Thus, there will be a focus on neurobiology and genetics approaches to psychiatric outcomes, as well as a social science approach to understanding these harmful behaviors, all while considering development across time. We will also consider ethical and moral implications of this research.
Taught by: Waller
Prerequisites: PSYC 162 and PSYC 181
Activity: Seminar
1.0 Course Unit
Notes: Undergraduates only.
PSYC 490 The Science of Behavior Change
This advanced seminar will expose students to cutting-edge research from psychology and economics on the most effective strategies for changing behavior for the better (e.g., promoting healthier eating and exercise, encouraging better study habits, and increasing savings rates). The weekly readings cover classic and current research in this area. For each topic we will cover, articles have been carefully chosen, and we will discuss those in detail. The goal is to help students develop theskill of reading and critiquing an academic paper. We will therefore have student led discussions of papers and required summaries. The target audience for this course is advanced undergraduate students interested in behavioral science research and particularly those hoping to learn about using social science to make a positive social impact. We will focus primarily on the applications of behavioral science to improving health, education and financial outcomes. Admission to this course is by application only. Please complete the application form to be considered for admission: https://tinyurl.com/bcfg-class-application
Taught by: Milkman and Duckworth
One-term course offered either term
Also Offered As: OIDD 490
Prerequisites: Permission of instructor required.
Activity: Seminar
1.0 Course Unit
Notes: Undergraduates only. Please complete the application form to be considered for admission: https://tinyurl.com/bcfg-class-application

PSYC 492 Social Cognition
Activity: Seminar
1.0 Course Unit

PSYC 511 Prob Models of Perception
Activity: Lecture
1.0 Course Unit

PSYC 521 Judgment & Decisions
Activity: Seminar
1.0 Course Unit

PSYC 525 Controversies in Psychology and Neuroscience
In this seminar, we will discuss several recent controversies in psychology and neuroscience, for example: “p-hacking,” replicability, methodological terrorists, neural activity in dead salmon and failures to control the false positive rate in neuroimaging, “voodoo correlations” and double dipping, whether Tic-Tacs can improve self-control and whether reading “old” makes you walk slower. Our goal is not just to engender ennui and/or schadenfreude, but also to ask what we can learn from these discussions about how to do science in the most rigorous, reproducible manner possible.
Activity: Seminar
1.0 Course Unit

PSYC 539 Theoretical and Computational Neuroscience
This course will develop theoretical and computational approaches to structural and functional organization in the brain. The course will cover: (i) the basic biophysics of neural responses, (ii) neural coding and decoding with an emphasis on sensory systems, (iii) approaches to the study of networks of neurons, (iv) models of adaptation, learning and memory, (v) models of decision making, and (vi) ideas that address why the brain is organized the way that it is. The course will be appropriate for advanced undergraduates and beginning graduate students. A knowledge of multi-variable calculus, linear algebra and differential equations is required (except by permission of the instructor). Prior exposure to neuroscience and/or Matlab programming will be helpful.
Taught by: Balasubramanian
Course not offered every year
Also Offered As: BE 530, BIBB 585, NGG 594, PHYS 585
Activity: Lecture
1.0 Course Unit

PSYC 541 Sleep and Memory
Why do we sleep? This question has puzzled scientists for centuries, but one reason emerging from research in the area is that sleep is critical for forming, retaining, and transforming our memories over time. This seminar explores human and animal research in psychology and neuroscience that has shed light on how sleep carries out these functions. Topics will include the different stages of sleep and their roles in memory consolidation, the neural systems involved in representing memory at different timescales, and the role of dreams in processing memories.
Activity: Seminar
1.0 Course Unit

PSYC 547 Foundations of Social, Cognitive, and Affective Neuroscience
Activity: Lecture
1.0 Course Unit

PSYC 549 Neuroscience and Society
Activity: Lecture
1.0 Course Unit

PSYC 557 Neuroscience, Ethics & Law
How does the neuroscience of human decision-making and emotion impact our understanding of ethics and law? What can neuroscience tell us about why people find actions moral or immoral, worthy of praise or punishment? What, if anything, can it tell us normatively about morality, agency and responsibility? And what other insights might neuroscience offer regarding other morally and legally relevant phenomena such as stereotyping and bias, the causes of antisocial behavior and the detection of deception?
Taught by: Farah
Also Offered As: LAW 557
Activity: Seminar
1.0 Course Unit

PSYC 579 Exp Methods Perception
Activity: Lecture
1.0 Course Unit

PSYC 600 Proseminar in General Psychology
Choice of half or full course units each sem. covering a range of subjects and approaches in academic psychology.
One-term course offered either term
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required
PSYC 609 Systems and Integrative Neuroscience
Course usually offered in fall term
Also Offered As: NGG 573
Activity: Lecture
1.0 Course Unit
Notes: Fulfills the Brain requirement

PSYC 611 Applied Regression and Analysis of Variance
An applied graduate level course in multiple regression and analysis of variance for students who have completed an undergraduate course in basic statistical methods. Emphasis is on practical methods of data analysis and their interpretation. Covers model building, general linear hypothesis, residual analysis, leverage and influence, one-way anova, two-way anova, factorial anova. Primarily for doctoral students in the managerial, behavioral, social and health sciences.
Taught by: Rosenbaum
Course usually offered in fall term
Also Offered As: BSTA 550, STAT 500
Prerequisite: STAT 102 or 112 or equivalent
Activity: Lecture
1.0 Course Unit

PSYC 612 Introduction to Nonparametric Methods and Log-linear Models
Course usually offered in spring term
Also Offered As: STAT 501
Activity: Lecture
1.0 Course Unit

PSYC 671 Violence: A Clinical Neuroscience Approach
Developed for both Psychology and Criminology graduate students, this interdisciplinary course outlines a clinical neuroscience approach to understanding violence in which the tools of neuroscience-neuroanatomy, neurophysiology, neurocognition, neuroendocrinology, neuropharmacology, molecular and behavioral genetics- are used to help inform the etiology and treatment of violence. Clinical components include psychopathy, proactive and reactive aggression, homicide, domestic violence, conduct disorder, oppositional defiant disorder, antisocial personality disorder, crime, and delinquency as well as their comorbid conditions (schizophrenia, drug abuse, hyperactivity). The interaction between social, psychological, and neurobiological processes in predisposing to violence will be highlighted, together with neurodevelopmental perspectives on violence focusing on prospective longitudinal and brain imaging research. Key implications for the criminal justice system, neuroethics, forensics psychology, and intervention will also be outlined.
Taught by: Raine
Course usually offered in fall term
Also Offered As: CRIM 671
Activity: Lecture
1.0 Course Unit
Notes: Graduate students only.

PSYC 698 Laboratory Rotation.
Lab rotation for psychology grad students.
One-term course offered either term
Activity: Lecture
3.0 Course Units
Notes: Dept permission required. Open only to psychology dept graduate students.

PSYC 699 Individual Research for First-Year Graduate Students
Two terms. student must enter first term.
Activity: Independent Study
3.0 Course Units

PSYC 699 Individual Research for First-Year Graduate Students
Activity: Independent Study
1.0 Course Unit

PSYC 703 Special Topics in Psychology
One-term course offered either term
Activity: Seminar
1.0 Course Unit

PSYC 704 Research Methods and Statistical Procedures for Social and Clinical Sciences
This course has three primary objectives: 1) developing criteria and strategies for strong inference of causal relationships in social and clinical psychology research; 2) examining the array of research designs employed in the social/clinical sciences together with the threats to internal and external validity associated with each; 3) learning and applying statistical analytical methods appropriate for questions in the social/clinical sciences. The course will employ a seminar format and a project-oriented approach to learning. Students will be encouraged to utilize examples from their own research programs in applying the design and analysis concepts covered in the course.
One-term course offered either term
Activity: Seminar
1.0 Course Unit

PSYC 705 Neuroethics
Neuroscience is increasingly affecting all aspects of human life, from the relatively familiar medical applications in neurology and psychiatry, to new applications in education, business, law, and the military. Today's neuroscience graduate students will be among the scientists, citizens, and policymakers who will lead society through the maze of decisions regarding the appropriate uses of neuroscience. This course provides a survey of the key ethical, legal, and social issues at the intersection of neuroscience and society. It will include a combination of traditional classroom lectures, discussion and debates, as well as an online component coordinated with a course at Wisconsin's Neuroscience and Public Policy graduate program.
Taught by: Farah
One-term course offered either term
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required.

PSYC 709 Special Topics in Clinical Psychology
A developmental approach to the study of psychopathology focuses on how psychological processes from normal to abnormal developmental trajectories. In this seminar we will cover theory, methods, and key constructs in the study of developmental psychopathology. Readings will include seminal empirical papers and chapters.
One-term course offered either term
Activity: Seminar
1.0 Course Unit
Notes: Graduate students only.

PSYC 711 Basic Problems in Developmental II
One-term course offered either term
Activity: Seminar
1.0 Course Unit

PSYC 712 Regression & Anova II
One-term course offered either term
Activity: Seminar
1.0 Course Unit

PSYC 744 Brain Development & Society
Activity: Seminar
1.0 Course Unit
PSYC 745 Special Topics in Cognitive Neuroscience
One-term course offered either term
Activity: Seminar
1.0 Course Unit

PSYC 747 Contemporary Research Issues in Social, Cognitive and Affective Neuroscience
Activity: Seminar
1.0 Course Unit

PSYC 810 Psychodiagnostic Testing
Course usually offered in fall term
Activity: Seminar
1.0 Course Unit

PSYC 811 Psychodiagnostic Interviewing
Course usually offered in fall term
Activity: Seminar
1.0 Course Unit

PSYC 815 Introductory Practicum
Course usually offered in spring term
Activity: Seminar
1.0 Course Unit

PSYC 820 Advanced Practicum
Intensive studies of single individuals including interviews, tests, and experiments; also clinical experience at appropriate community agencies.
One-term course offered either term
Activity: Seminar
1.0 Course Unit

PSYC 999 Individual Study and Research
One-term course offered either term
Activity: Independent Study
0.5 Course Units