DESIGN (DSGN)

DSGN 220 Pixel to Print
This studio course introduces students to the world of print media and circulation through techniques in Risograph (a high-speed digital printing system developed in Japan in the 1980s), xerography, and letterpress, focusing particularly on the format of posters and artists’ ephemera. Beginning with the Adobe Creative Suite, students will create their own broadsides, flyers, announcement cards, and print-based installations throughout the course, exploring ways in which artists and designers make use of the printed form to disseminate information; initiate happenings; advertise events; or foment change. Students will learn about some of the most significant producers working within this realm—from Dada to punk bands in the ’70s to contemporary hybrid publishing collectives—and develop skills in page layout, typography, and design; digital to analog pre-press and post-print production methods; and mechanized and hand-pulled press operations. The course includes a field trip to NYC.
Taught by: Kayla Romberger
Also Offered As: DSGN 520
Activity: Studio
1.0 Course Unit

DSGN 233 Digital Illustration
Digital illustration is a course designed to expose students to the diverse techniques and approaches used in creating digital illustration for print publication. Course assignments will include two-dimensional animation storyboarding, rendering, figure illustration, technical diagram illustration, photographic retouching and enhancing. Digital applications will include morphing with layers, surface cloning, three-dimensional modeling and spatial transformation of scenes and objects. Students completing this course will possess the capability to design and place creatively and skillfully execute finished artwork.
One-term course offered either term
Also Offered As: DSGN 633
Prerequisite: DSGN 264 AND FNAR 123
Activity: Studio
1.0 Course Unit

DSGN 234 Art of the web: Interactive Concepts for Art & Design
Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical conceptual skills and foster creative thinking.
One-term course offered either term
Also Offered As: DSGN 634
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 235 3-D Computer Modeling
Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanism while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.
One-term course offered either term
Also Offered As: DSGN 635
Prerequisite: FNAR 123 AND DSGN 636
Activity: Studio
1.0 Course Unit

DSGN 236 Digital Figure Modeling
This course introduces methods of modeling, texturing, and rendering human and animal figures. Students will study anatomical bone and muscle structures, and then employ this knowledge as they develop polygonal models for real-time 3D simulations or gaming environments, high-resolution rendering, and rapid prototyping.
Course usually offered in spring term
Also Offered As: DSGN 536
Prerequisite: DSGN 235
Activity: Studio
1.0 Course Unit

DSGN 238 Open Book
"Open Book" will focus on visual communication of information. It will address two methods of inquiry and the corresponding means of visual representation: the objective, well-structured research of facts and images, and the creative process of their subjective evaluation and restatement. Students will propose a topic based on their area of interest and engage in a focused, semester-long exploration, which they will present in the form of a designed and printed book.
Course usually offered in fall term
Also Offered As: DSGN 538
Activity: Seminar
1.0 Course Unit

DSGN 240 User Experience (UX) and User Interface (UI) Design
Great user experience and user interface design are essential for creating digital products that people love. In this course, we’ll cover a range of topics from user research through designing visual interfaces, as well as principles of human-centered design and the design process. We’ll study existing products to understand the problems they solve and the elements that make them succeed. Lectures and coursework will include practical exercises with user journeys, flowcharts, style sheets, and prototyping tools. No design experience necessary.
Taught by: Kate Clayton
Also Offered As: DSGN 540
Activity: Studio
1.0 Course Unit
DSGN 245 Book and Publication Design
Book and Publication Design will focus on the theory and profession of designing multi-page publications. Students will analyze formal structures of different types of books-literature and poetry, fiction and non-fiction compilations, illustrated volumes such as art catalogues, monographs and textbooks, and serial editions-discussing both traditional and experimental approaches. The format of the course will be split between theoretical and historical evaluations of book formats by drawing on the Van Pelt Rare Book Collection - and studio time where students will design books with attention to the format's conceptual relationship to the material at hand with a focus on typography and page layout, as well as on understanding production methods of printing and binding. In addition to the conventions of page layout, students will examine paratextual elements (title page, practice of pagination and other internal structuring, content lists and indexes, colophons, notes, and marginalia, and end-leaves binding, etc.). Prerequisite: DSGN 264 or permission from the instructor. Taught by: Hyland Course usually offered in fall term Also Offered As: DSGN 645 Prerequisite: DSGN 264 Activity: Studio 1.0 Course Unit

DSGN 247 Environmental Animation
This studio-based course examines the disciplinary spaces of landscape, art, and architecture through the medium of 3D animation and storytelling. We immerse ourselves in environments that may be as small as a cell or as large as a planet. From the refiguring of images, models, graphic design, or video to visualization or coding the genesis of whole environments, this course will allow for a variety of entry point for students of different disciplines and skill levels. Projects will range in scope from animated GIFs to animated shorts. This course embraces a spirit of invention, collaborative learning, and interdisciplinary cross-pollination. Experience in landscape architecture, architecture, animation, programming, film, GIS, and/or graphic design is encouraged. We will examine and discuss some standard typologies such as the walk-through, data-visualization, as well as filmic and avant garde strategies as starting points for creative reinterpretation of space. We will primarily be using Blender and After Effects with support from Unreal Engine. Python scripting will be included in most assignments to enhance artistic control of the software. Taught by: Landau Course usually offered in spring term Also Offered As: DSGN 547 Activity: Studio 1.0 Course Unit

DSGN 264 Art, Design and Digital Culture
This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today’s visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over a broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu For BA Students: Humanities and Social Science S One-term course offered either term Also Offered As: DSGN 636, VLST 264 Activity: Studio 1.0 Course Unit

DSGN 266 Graphic Design with Creative Technologies
This aim this course is to introduce students creative ways to use color, typography, and layout across new materials and media, ranging from print to physical objects. Students will explore visual design through a set of assignments and projects that are geared towards exploring the role of design in visual arts, interaction design, media design and architecture. The course introduces a number of design concepts such as content organization, navigation, interaction and date-driven design and show ways to develop new design metaphors, presentation techniques, and imagery using old and new technologies. Course is structured as a combination of lectures and hands on workshops where students will have the chance to work both individually and collaboratively to realize their projects. One-term course offered either term Also Offered As: DSGN 566 Prerequisite: DSGN 264 OR DSGN 636 Activity: Studio 1.0 Course Unit

DSGN 268 Biological Design
This course is a research-based design studio that introduces new materials, fabrication, and prototyping techniques to develop a series of design proposals in response to the theme: Biological Design. The studio introduces life sciences and biotechnologies to designers, artists, and non-specialists to develop creative and critical propositions that address the social, cultural, and environmental needs of the 21st century. One-term course offered either term Also Offered As: DSGN 568 Prerequisite: DSGN 264 Activity: Studio 1.0 Course Unit
DSGN 269 Typography
The study and practice of typography spans the history of individual letterforms through the typesetting of full texts. It is a complete immersion into type as an integral part of visual communication. Typesetting conventions and variables including legibility, readability, texture, color and hierarchy will be stressed, as well as a form for organizing information and expressing visual ideas. Studio work will include collection and analyzing type, designing an original typeface, researching type history and experimenting with typographic forms.
One-term course offered either term
Also Offered As: DSGN 569
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 270 Graphic Design Practicum
Practicum provides a real world experience for students interested in solving design problems for non-profit and community organizations. The studio works with two clients each semester, and previous projects have included print design, web design, interpretive signage and exhibit interactives. All projects are real and will result in portfolio-ready finished product. Students will participate in full design experience including design, client interaction, presentations, production and project management. In addition, students will take field trips, meet professionals and go on studio visits.
One-term course offered either term
Also Offered As: DSGN 266 OR DSGN 269
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 286 Visual Narrative
Visual Narrative is an introduction to the practice of storytelling with images. From news and information to art, law, and science, visual storytelling is a critical aspect of creating and navigating contemporary culture. This course is situated at the intersection of design, art, and visual culture, focusing on relevant forms and topics including the photo essay, information design and visual explanation, the photographic sequence in contemporary art, scenario design and concept visualization. Visual Narrative focuses on traditional as well as emerging modes of production and distribution for documentary, visual storytelling, and photojournalism, exploring new aesthetics and the social impact of visual narratives. Visual Narrative immerses students in the study of narrative craft and creation of visual stories covering topics relevant to designers and photographers. Beginning with the photo series and the photo documentary tradition, the course evolves through multimedia narrative and non-narrative forms. Students will explore principles of narrative construction in design and photography through lecture, studio projects, and with presentations by visiting artists, designers, and photographers. Students will work within and across disciplines of art, design, and visual journalism, exploring topics including context, cause and effect, time, space, flow, picture-to-picture relationships, sequence, visual hierarchy, and linearity. Study of non-narrative systems- categorical, rhetorical, abstract, andassocitional forms - as well as interactive narratives will also be included.
Course usually offered in fall term
Also Offered As: DSGN 686
Activity: Studio
1.0 Course Unit

DSGN 300 Contemporary Theories of Design
This seminar explores a range of theories, concepts, and thought patterns that shape different disciplines of design. From critical science studies to object-orient ontology and speculative design, it discusses how theoretical frameworks drive innovation, critique, and user experience.
Taught by: Telhan
Also Offered As: DSGN 500
Activity: Seminar
1.0 Course Unit

DSGN 306 Design 21: Design After the Digital
Last century, the digital revolution transformed every aspect of our lives. It shaped every design discipline and defined the ways we imagine and fabricate anything from images to everyday products to clothing, cars, buildings and and megacities. Today, design is going through other technical and conceptual revolutions. We design with biotechnologies, fall in love in Virtual Reality with AI bots, rent our cognitive labor through cryptocurrencies. Our creative capabilities, on the other hand, are bounded by a polluted, over-crowded, and resource-constrained planet that is suffering major income and educational inequality. Design After the Digital interrogates the role of design for this century. The seminar surveys the conceptual and technical developments in the past decade to develop an interdisciplinary understanding of design, science and technology. We will study how new design and fabrication methods shape what we eat, what we wear, how we form opinions and express ourselves. The goal will be to develop new literacies of design that will help us acclimate better to the realities of the century as creative and critical citizens who can shape its products and values.
Taught by: Telhan
Course usually offered in fall term
Also Offered As: DSGN 506
Activity: Seminar
1.0 Course Unit

DSGN 317 Cultures of Making
Cultures of Making is an integrative studio that explores new frontiers of design that enable, empower, and interrogate the human in the 21st century. We will take the human body, identity, or image as a site of investigation and design new types of products for it. Through our designs, we will raise questions about the motivations behind quantifying ourselves, desires for being permanently available and connected, complacency with not having privacy or intimacy, and eagerness to substitute craft, labor, and decision-making with intelligent systems from self-driving cars to painting bots and trading algorithms. This studio will pursue a research - production-oriented format. We will incorporate techniques and technologies from fields as diverse as printed electronics, biochemical fabrication, machine learning and robotics to develop applications that respond to the emergent perceptions of the human for its individual, social, or environmental identity.
Taught by: Orkan Telhan
Also Offered As: DSGN 517
Activity: Studio
1.0 Course Unit
DSGN 318 Futures for All: Reimagining social equality through art and technology
How can art become a form of activism? How does design shape social equality? This course investigates how technological media shape culture and society, and how artists and designers can actively reshape these dynamics through art and design. We will engage in the practice of "speculative design", and tactical design using various digital tools to envision different futures, reflecting on social, political, and ethical implications of various technologies. Exploring the relationship between digital and physical realities, students will utilize their skills in art and design while applying them to critical social discourse and activism. Students will also develop skills in active reading, critical analysis, and scholarly writing.
Taught by: Ani Liu
Also Offered As: DSGN 518
Activity: Seminar
1.0 Course Unit

DSGN 319 Feminist Technoscience: Art, Technology, & Gender
How does scientific research produce and reinforce concepts of gender? How is sexism propagated through technological media? This course investigates how scientific and technological media shape culture and society, particularly through the lens of gender and sexuality. Engaging in interdisciplinary art making, students will use various technological media to reflect on the social, political, and ethical domains of technoscientific feminism. Exploring the relationship between digital and physical realities, students will utilize their skills in art and design while applying them to critical social discourse and gender theory. Students will also develop skills in active reading, critical analysis, and scholarly writing. By the end of the course, students will have created a unique work of art that imagines more empowered, equitable futures.
Taught by: Ani Liu
Also Offered As: DSGN 519
Activity: Seminar
1.0 Course Unit

DSGN 325 Design Tools and Technologies
This studio focuses on providing digital skills to conceptualize, produce and disseminate design products. Through workshops, software training sessions and labs, students will engage with different design professionals and learn state-of-the art tools used in interactive media, UI/UX, modeling and fabrication design. Students will also learn ways to work with open source software and have a chance to build their own design tools through creative programming exercises. The course does not require any technical background, but assumes basic familiarity with visual design tools (i.e., Adobe Creative Suite).
Taught by: Orkan Telhan
Also Offered As: DSGN 625
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 328 Functions for Form and Material
This studio course will introduce methods of material selection and fabrication with the goal of developing evocative and effective designs. We will learn parametric modeling techniques that allow visualization to begin before all of the requirements of a design are known. We will implement techniques that allow us to test and optimize forms to be stronger, lighter, or to fail or perform more predictably. The class will work to identify materials with properties that introduce new structural or conceptual possibilities for our designs. For each project, we will use a broad range of fabrication techniques for metals, natural and synthetic materials. The goal of the course is to develop a creative approach towards learning to work with unfamiliar tools and materials.
Taught by: Mosely
Also Offered As: DSGN 528
Activity: Studio
1.0 Course Unit

DSGN 337 Information Design and Visualization
Information Design and Visualization is an introductory course that explores the structures of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture.
One-term course offered either term
Also Offered As: DSGN 637
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 343 Language of Design
The course will explore the changing relationship during the modern era between design (structure, model, plan of a work of art) and language (metaphor for a system of communication; speech, writing, literature). Our readings and visual presentations will focus on topics in the decorative arts, painting, architecture, typography and visual communication. We will focus on primary sources in order to situate our inquiry in a larger historical context. The discussion will center on claims about the inherent meaning of form, discuss different roles for design - as an ideological statement, as an agent of social change, and as an idiosyncratic expression. Topics will also include the search for a universal language, attempts at bridging the perceived gap between spoken and written language, and the impact of visual form on the meaning of literary texts (particularly when the author has been involved in the publication process). Students can suggest additional topics related to their field of study.
Course usually offered in spring term
Also Offered As: DSGN 643
Activity: Seminar
1.0 Course Unit
DSGN 366 Advanced 3-D Modeling
Advanced 3-D Modeling will give students the opportunity to refine skills in modeling, texturing, lighting and rendering with an emphasis on the evolution of ideas through constant revision based class critique. Students will use a variety of industry standard software packages, including but not limited to Maya and Mudbox to compose complex environments. Projects are designed to give students the opportunity to work with original content within a simulated production environment.
One-term course offered either term
Also Offered As: DSGN 646
Prerequisite: DSGN 235 OR DSGN 635 OR DSGN 236 OR DSGN 536
Activity: Studio
1.0 Course Unit

DSGN 370 Advanced Graphic Design and Typography
This course will explore advanced commercial, public and personal forms of visual communication. Emphasis will be placed on creative problem solving with consideration for audience. Discussion of design history, current ideology and future design applications will inform individual student projects. Work generated in this studio can be used to build a portfolio. Prerequisite: Permission from instructor if prerequisites are not met.
Course usually offered in fall term
Also Offered As: DSGN 670
Prerequisite: DSGN 266 AND DSGN 269
Activity: Studio
1.0 Course Unit

DSGN 378 Interfacing Cultures: Designing for Mobile, Web and Public Media
This course introduces advanced topics related to contemporary media technologies, ranging from social media to mobile phone applications and urban interfaces. Students learn how to use new methods from interaction design, service design, and social media and work towards prototyping their ideas using new platforms and media. The class will cover a range of topics such as online-gaming, viral communication, interface culture, networked environments, internet of things and discuss their artistic, social, and cultural implications to the public domain.
Course usually offered in spring term
Also Offered As: DSGN 678
Prerequisite: DSGN 234
Activity: Studio
1.0 Course Unit

DSGN 380 Design Future(s)
Design Future(s) is production-oriented studio which explores the relationship between critical design and emerging technologies. Students learn how to work with sensing, machine learning, robotics, and biofabrication to explore what it means to design in response to the social, cultural, and environmental realities of our times. The course is organized through hands-on workshops, lectures, design and critique sessions to develop both technical skills and learn about new design methodologies. Every semester, the studio is developed around a specific theme (i.e., future of body and labor, future of identity, future interfaces) and work towards developing a discursive and multi-disciplinary understanding of "future" that is informed by methodologies outside the traditional Western design canon.
Taught by: Orkan Telhan
Also Offered As: DSGN 580
Activity: Studio
1.0 Course Unit

DSGN 388 Creative Research
This seminar explores different aspects of research–knowledge production and dissemination–across a variety of creative practices from the arts to the humanities, engineering, and sciences. Students investigate what it means to observe, measure, analyze, test, study, experiment, diagram, prototype, speculate, generate and criticize; apply multiple modes of inquiry; be conceptual, analytical, propositional and critical at the same time, all in order to develop their work from different perspectives. As students work across different methodologies, they also explore ways of making their work public through various social protocols, publications, and exhibitions that address different audiences.
Taught by: Orkan Telhan
Course usually offered in spring term
Activity: Seminar
1.0 Course Unit

DSGN 399 Independent Study
One-term course offered either term
Activity: Independent Study
1.0 Course Unit

DSGN 488 Senior Seminar Project (Fall)
This is the first of two courses that serves as a culminating studio for Design Majors. Students will explore different models and methodologies for design practices, while exploring the reciprocal influences of emerging technologies, social practices, and environmental issues. There will be a series of technical workshops to allow students to explore design and fabrication with contemporary digital tools. Throughout the seminar, students will have opportunities to research and engage with different professional practitioners to gain insights into the day in the life of thought leaders in the discipline.
Taught by: Ani Liu
Course usually offered in fall term
Activity: Seminar
1.0 Course Unit

DSGN 489 Senior Seminar Project (Spring)
This is the second of two courses that serves as a culminating studio for Design Majors. This studio is an opportunity for Design majors to deepen their practice and synthesize some of the expansive research of the first module. Students will continue to have exposure to thought leaders in the discipline through a mini conversation series. In this second semester, students will delve into a project based studio which will allow them to further define and articulate their values as a designer, as well as position themselves in the global context of design.
Taught by: Ani Liu
Course usually offered in fall term
Activity: Seminar
1.0 Course Unit

DSGN 500 Contemporary Theories of Design
This seminar explores a range of theories, concepts, and thought patterns that shape different disciplines of design. From critical science studies to object-orient ontology and speculative design, it discusses how theoretical frameworks drive innovation, critique, and user experience.
Taught by: Telhan
Also Offered As: DSGN 300
Activity: Seminar
1.0 Course Unit
DSGN 506 Design 21: Design After the Digital
Last century, the digital revolution transformed every aspect of our lives. It shaped every design discipline and defined the ways we imagine and fabricate anything from images to everyday products to clothing, cars, buildings, and megacities. Today, design is going through other technical and conceptual revolutions. We design with biotechnologies, fall in love in Virtual Reality with AI bots, rent our cognitive labor through cryptocurrencies. Our creative capabilities, on the other hand, are bounded by a polluted, over-crowded, and resource-constrained planet that is suffering major income and educational inequality. Design After the Digital interrogates the role of design for this century. This seminar surveys the conceptual and technical developments in the past decade to develop an interdisciplinary understanding of design, science, and technology. We will study how new design and fabrication methods shape what we eat, what we wear, how we form opinions and express ourselves. The goal will be to develop new literacies of design that will help us acclimate better to realities of the century as creative and critical citizens who can shape its products and values.
Taught by: Telhan
Course usually offered in fall term
Also Offered As: DSGN 306
Activity: Seminar
1.0 Course Unit

DSGN 517 Cultures of Making
Cultures of Making is an integrative studio that explores new frontiers of design that enable, empower, and interrogate the human in the 21st century. We will take the human body, identity, or image as a site of investigation and design new types of products for it. Through our designs, we will raise questions about the motivations behind quantifying ourselves, desires for being permanently available and connected, complacency with not having privacy or intimacy, and eagerness to substitute craft, labor, and decision-making with intelligent systems from self-driving cars to painting bots and trading algorithms. This studio will pursue a research - and production-oriented format. We will incorporate techniques and technologies from fields as diverse as printed electronics, biochemical fabrication, machine learning and robotics to develop applications that respond to the emergent perceptions of the human for its individual, social, or environmental identity.
Taught by: Okran Telhan
Course usually offered in spring term
Also Offered As: DSGN 317
Activity: Studio
1.0 Course Unit

DSGN 518 Futures for All: Reimagining social equality through art and technology
How can art become a form of activism? How does design shape social equality? This course investigates how technological media shape culture and society, and how artists and designers can actively reshape these dynamics through art and design. We will engage in the practice of "speculative design", and "tactical design" using various digital tools to envision different futures, reflecting on social, political, and ethical implications of various technologies. Exploring the relationship between digital and physical realities, students will utilize their skills in art and design while applying them to critical social discourse and activism. Students will also develop skills in active reading, critical analysis, and scholarly writing.
Taught by: Ani Liu
Also Offered As: DSGN 318
Activity: Seminar
1.0 Course Unit

DSGN 519 Feminist Technoscience: Art, Technology, & Gender
How does scientific research produce and reinforce concepts of gender? How is sexism propagated through technological media? This course investigates how scientific and technological media shape culture and society, particularly through the lens of gender and sexuality. Engaging in interdisciplinary art making, students will use various technological media to reflect on the social, political, and ethical domains of technoscientific feminism. Exploring the relationship between digital and physical realities, students will engage art and design with critical social discourse and gender theory. Students will also develop skills in active reading, critical analysis, and scholarly writing. By the end of the course, students will have created a unique work of art that imagines more empowered, equitable futures.
Taught by: Ani Liu
Also Offered As: DSGN 319
Activity: Seminar
1.0 Course Unit

DSGN 520 Pixel to Print
This studio course introduces students to the world of print media and circulation through techniques in Risograph (a high-speed digital printing system developed in Japan in the 1980s), xerography, and letterpress, focusing particularly on the format of posters and artists’ ephemera. Beginning with the Adobe Creative Suite, students will create their own broadsides, flyers, announcement cards, and print-based installations throughout the course, exploring ways in which artists and designers make use of the printed form to disseminate information; initiate happenings; advertise events; or foment change. Students will learn about some of the most significant producers working within this realm—from Dada to punk bands in the ’70s to contemporary hybrid publishing collectives—and develop skills in page layout, typography, and design; digital to analog pre-press and post-print production methods; and mechanized and hand-pulled press operations. The course includes a field trip to NYC.
Taught by: Kayla Romberger
Also Offered As: DSGN 220
Activity: Studio
1.0 Course Unit

DSGN 528 Functions for Form and Material
This studio course will introduce methods of material selection and fabrication with the goal of developing evocative and effective designs. We will learn parametric modeling techniques that allow visualization to begin before all the requirements of a design are known. We will implement techniques that allow us to structurally test and optimize forms to be stronger, lighter, to fail more predictably, or to function efficiently. The class will work to identify materials with properties that introduce new structural or conceptual possibilities for our designs. For each project, we will use a broad range of fabrication techniques for metals, natural and synthetic materials. The goal of the course is to develop a creative approach towards learning to work with unfamiliar tools and materials.
Taught by: Mosley
Course usually offered in spring term
Also Offered As: DSGN 328
Activity: Studio
1.0 Course Unit
DSGN 536 Digital Figure Modeling
This course introduces methods of modeling, texturing, and rendering human and animal figures. Students will study anatomical bone and muscle structures, and then employ this knowledge as they develop polygonal models for real-time 3D simulations or gaming environments, high-resolution renderings, and rapid prototyping.
Course usually offered in spring term
Also Offered As: DSGN 236
Prerequisite: DSGN 235
Activity: Studio
1.0 Course Unit

DSGN 538 Open Book
"Open Book" will focus on visual communication of information. It will address two methods of inquiry and the corresponding means of visual representation: the objective, well-structured research of facts and images, and the creative process of their subjective evaluation and restatement. Students will propose a topic based on their area of interest and engage in a focused, semester-long exploration, which they will present in the form of a designed and printed book.
Course usually offered in fall term
Also Offered As: DSGN 238
Activity: Seminar
1.0 Course Unit

DSGN 540 User Experience (UX) and User Interface (UI) Design
Great user experience and user interface design are essential for creating digital products that people love. In this course, we'll cover a range of topics from user research through designing visual interfaces, as well as principles of human-centered design and the design process. We'll study existing products to understand the problems they solve and the elements that make them succeed. Lectures and coursework will include practical exercises with user journeys, flowcharts, style sheets, and prototyping tools. No design experience necessary.
Taught by: Kate Clayton
Also Offered As: DSGN 240
Activity: Studio
1.0 Course Unit

DSGN 547 Environmental Animation
This studio-based course examines the disciplinary spaces of landscape, art, and architecture through the medium of 3D animation and storytelling. We immerse ourselves in environments that may be as small as a cell or as large as a planet. From the refiguring of images, models, graphic design, or video to visualization or coding the genesis of whole environments, this course will allow for a variety of entry point for students of different disciplines and skill levels. Projects will range in scope from animated GIFs to animated shorts. This course embraces a spirit of invention, collaborative learning, and interdisciplinary cross-pollination. Experience in landscape architecture, architecture, animation, programming, film, GIS, and/or graphic design is encouraged. We will examine and discuss some standard typologies such as the walk-through, data visualization, as well as filmic and avant garde strategies as starting points for creative reinterpretation of space. We will primarily be using 3D Studio Max and After Effects will support from Next Engine 3D Scanner, Rhino, and Grasshopper. Scripting will be included in most assignments to enhance artistic control of the software. Prerequisite: Experience in landscape architecture, architecture, animation, programming, file, Photoshop, or graphic design is strongly encouraged but not required.
Taught by: Landau
Course usually offered in spring term
Also Offered As: DSGN 247
Activity: Studio
1.0 Course Unit

DSGN 566 Graphic Design with Creative Technologies
The aim of this course is to introduce students creative ways to use color, typography, and layout across materials and media, ranging from print to physical objects. Students will explore visual design through a set of assignments and projects that are geared towards exploring the role of design in visual arts, interaction design, media design and architecture. The course introduces a number of design concepts such as content organization, navigation, interaction and data-driven design and show ways to develop new design metaphors, presentation techniques, and imagery using old and new technologies. Course is structured as a combination of lectures and hands on workshops where students will have the chance to work both individually and collaboratively to realize their projects.
One-term course offered either term
Also Offered As: DSGN 266
Prerequisite: DSGN 264 OR DSGN 636
Activity: Studio
1.0 Course Unit

DSGN 568 Biological Design
This course is a research-based design studio that introduces new materials, fabrication, and prototyping techniques to develop a series of design proposals in response to the theme: Biological Design. The studio introduces life sciences and biotechnologies to designers, artists, and non-specialists to develop creative and critical propositions that address the social, cultural, and environmental needs of the 21st century.
One-term course offered either term
Also Offered As: DSGN 268
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit
DSGN 569 Typography
The study and practice of typography spans the history of individual letterforms through the typesetting of full texts. It is a complete immersion into type as an integral part of visual communication. Typesetting conventions and variables including legibility, readability, texture, color and hierarchy will be stressed, as well as a form for organizing information and expressing visual ideas. Studio work will include collecting and analyzing type, designing and orginal typeface, researching type history and experimenting with typographic forms.
Course usually offered in spring term
Also Offered As: DSGN 269
Prerequisite: DSGN 270
Activity: Studio
1.0 Course Unit

DSGN 570 Graphic Design Practicum
Practicum provides a real world experience for students interested in solving design problems for non-profit and community organizations. The studio works with two clients each semester, and previous projects have included print design, web design, interpretive signage and exhibit interactives. All projects are real and will result in a portfolio-ready finished product. Students will participate in a full design experience including design, client interaction, presentations, production, and project management. In addition, students will take field trips, meet professionals and go on studio visits.
One-term course offered either term
Also Offered As: DSGN 266 OR DSGN 269
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 580 Design Future(s)
Design Future(s) is production-oriented studio which explores the relationship with critical design and emerging technologies. Students learn how to work with sensing, machine learning, robotics, and biofabrication and explore what it means to design in response to the social, cultural, and environmental realities of our times. The course is organized through hands-on workshops, lectures, design and critique sessions to develop both technical skills and learn about new design methodologies. Every semester, the studio is developed around a specific theme (i.e., future bodies, future of identity, future interfaces, etc.) and work towards developing a discursive and multi-disciplinary understanding of "future" that is informed by methodologies outside the traditional Western design canon.
Taught by: Orkan Telhan
Also Offered As: DSGN 380
Activity: Studio
1.0 Course Unit

DSGN 625 Design Tools and Technologies
This studio focuses on providing digital skills to conceptualize, produce and disseminate design products. Through workshops, software training sessions and labs, students will engage with different design professionals and learn state-of-the art tools used in interactive media, UI/UX, modeling and fabrication design. Students will also learn ways to work with open source software and have a chance to build their own design tools through creative programming exercises. The course does not require any technical background, but assumes basic familiarity with visual design tools (i.e., Adobe Creative Suite).
Taught by: Orkan Telhan
Also Offered As: DSGN 325
Activity: Studio
1.0 Course Unit

DSGN 633 Digital Illustration
Digital Illustration is a course designed to expose students to the diverse techniques and approaches used in creating digital illustration for print publication. Course assignments will include two-dimensional animation, storyboard rendering, figure illustration, technical diagram illustration, photographic retouching and enhancing. Digital applications will include morphing with layers, surface cloning, three-dimensional modeling and spatial transformation of scenes and objects. Students completing this course will possess the capability to design and plan creatively and skillfully execute finished artwork.
One-term course offered either term
Also Offered As: DSGN 233
Prerequisite: DSGN 664 AND FNAR 123
Activity: Studio
1.0 Course Unit

DSGN 634 Art of the Web: Interactive Concepts for Art & Design
Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical conceptual skills and foster creative thinking.
One-term course offered either term
Also Offered As: DSGN 234
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 635 3-D Computer Modeling
Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanisms while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.
One-term course offered either term
Also Offered As: DSGN 235
Prerequisite: FNAR 123 AND DSGN 636
Activity: Studio
1.0 Course Unit
DSGN 636 Art, Design and Digital Culture
This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today's visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over a broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need registering for a closed section, please email the department at fnaruq@design.upenn.edu
One-term course offered either term
Also Offered As: DSGN 264, VLST 264
Activity: Studio
1.0 Course Unit

DSGN 637 Information Design and Visualization
Information design and visualization is an introductory course that explores the structure of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture.
One-term course offered either term
Also Offered As: DSGN 337
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 638 Creative Research
This seminar explores what it means to do research in creative and critical practices. Students learn about different research methods from design, engineering, humanities and sciences; utilize them for developing and evaluating their individual creative work as cultural producers. This is an interdisciplinary course that encourages students to observe, measure, analyze, test, study, experiment, diagram, prototype, speculate, generate and criticize; apply multiple modes of inquiry; be conceptual, analytical, propositional and critical at the same time to develop their work from different perspectives.
Taught by: Orkan Telhan
Course usually offered in fall term
Activity: Seminar
1.0 Course Unit

DSGN 643 Language of Design
The course will explore the changing relationship during the modern era between design (structure, model, plan of a work of art) and language (metaphor for a system of communication; speech, writing, literature). Our readings and visual presentations will focus on topics in decorative arts, painting, architecture, typography and visual communication. We will focus on primary sources in order to situate our inquiry in a larger historical context. The discussion will center on claims about the inherent meaning of form, discuss different roles for design - as an ideological statement, as an agent of social change, and as an idiosyncratic expression. Topics will also include the search for a universal visual language, attempts at bridging the perceived gap between spoken and written language, and the impact of visual form on the meaning of literary texts (particularly when the author has been involved in the publication process). Students can suggest additional topics to their field of study.
Course usually offered in spring term
Also Offered As: DSGN 343
Activity: Seminar
1.0 Course Unit

DSGN 645 Book and Publication Design
Book and Publication Design will focus on the theory and professional practice of designing multi-page publications. Students will analyze formal structures of different types of book-literature and poetry, fiction and non-fiction compilations, illustrated volumes such as art catalogues, monographs, and textbooks, and serial editions-discussing both traditional and experimental approaches. The format of the course will be split between theoretical and historical evaluations of book formats by drawing on the Van Pelt Rare Book collection - and studio time where students will design books with attention to the format's conceptual relationship to the material at hand with a focus on typography and page layout, as well as undertaking production methods of printing and binding. In addition to the conventions of page layout students will examine paratextual elements (title page, practices of pagination and other internal structuring, content lists and indexes, and colophons, notes and marginalia, end-leaves, binding etc.). Prerequisite: DSGN 264 or permission from the instructor.
Taught by: Hyland
Course usually offered in fall term
Also Offered As: DSGN 245
Prerequisite: DSGN 264
Activity: Studio
1.0 Course Unit

DSGN 646 Advanced 3D Modeling
Advanced 3D Modeling will give students the opportunity to refine skills in modeling, texturing, lighting, and rendering with an emphasis on the evolution of ideas through constant revision based on class critique. Students will use a variety of industry standard software packages, including but not limited to Maya and Mudbox to compose complex environments. Projects are designed to give students the opportunity to work with original content with a simulated production environment.
One-term course offered either term
Also Offered As: DSGN 366
Prerequisite: DSGN 235 OR DSGN 635 OR DSGN 236 OR DSGN 536
Activity: Studio
1.0 Course Unit
DSGN 670 Advanced Graphic Design and Typography
This course will explore advanced commercial, public and personal forms of visual communication. Emphasis will be placed on creative problem solving with consideration for audience. Discussion of design history, current ideology and future design applications will inform individual student projects. Work generated in this studio can be used build a portfolio. Prerequisite: Permission from instructor if prerequisites are not met.
Course usually offered in fall term
Also Offered As: DSGN 370
Prerequisite: DSGN 266 AND DSGN 269
Activity: Studio
1.0 Course Unit

DSGN 678 Interfacing Culture: Designing for Mobile, Web and Public Media
This course introduces advanced topics related to contemporary media technologies, ranging from social media to mobile phone applications and urban interfaces. Students learn how to use new methods from interaction design, service design, and social media and work towards prototyping their ideas using new platforms and media. The class will cover a range of topics such as online-gaming, viral communication, interface culture, networked environments, internet of things and discuss their artistic, social, and cultural implications to the public domain.
Course usually offered in spring term
Also Offered As: DSGN 378
Prerequisite: DSGN 234
Activity: Studio
1.0 Course Unit

DSGN 686 Visual Narrative
Visual Narrative is an introduction to the practice of storytelling with images. From news and information to art, law, and science, visual storytelling is a critical aspect of creating and navigating contemporary culture. This course is situated at the intersection of design, art, and visual culture, focusing on relevant forms and topics including the photo essay, information design and visual explanation, the photographic sequence in contemporary art, scenario design and concept visualization. It proposes that studying and making sequential images and visual essays in a wide range of media- comics and graphic novels, propaganda, environments and installations, social media, animation, video, and digital media- are critical to understanding culture. The course immerses students in the study of narrative craft and creation of visual stories covering topics relevant to designers and photographers. Beginning with the photo series an the photo documentary tradition, the course evolves through multimedia narrative and non-narrative forms. Students will explore principles of narrative construction in design and photography through lecture, studio projects, and with presentations by visiting artists, designers, and photographers.
Taught by: Comber and Diamond
Also Offered As: DSGN 286
Activity: Studio
1.0 Course Unit