**VISUAL STUDIES (VLST)**

**VLST 101 Eye, Mind, and Image**
Visual Studies 101 provides an introduction to the collaboration of eye, mind, and image that produces our experience of a visual world. How and what do we see? How do we perceive color, space, and motion? What is an image? Does seeing vary across cultures and time? What can art tell us about vision? Is there a 21st-century form of seeing? This course combines different approaches to the study of vision, drawing from psychology, cognitive science, philosophy, history of art, and fine art. Professors representing two or three disciplines present lectures that demonstrate the methods of their disciplines and draw connections across fields. This course combines different approaches to the study of vision, drawing from psychology, cognitive science, philosophy, history of art, and fine art. Professors representing two or three disciplines present lectures that demonstrate the methods of their disciplines and draw connections across fields. Prerequisite: This course is required of all Visual Studies Majors (stage 1).

For BA Students: Hum/Soc Sci or Nat Sci/Math Sector
Taught by: Hatfield/Leja
One-term course offered either term
Activity: Lecture
1.0 Course Unit

**VLST 102 Form and Meaning**
This course will introduce students to the theory and practice of image-making, focusing on the development of observational skills and analytical thinking. We will look at conventions of artistic representation across time and cultures; discuss types of visual information and modes of formal language; explore visual narrative techniques; and seek to expand our understanding of the role images play in our culture. We will look at conventions of pictorial representation across time and cultures; discuss types of visual information and modes of formal language; explore visual narrative techniques; and seek to expand our understanding of the role images play in our culture. Prerequisite: This course is required of all Visual Studies Majors (stage 1 or 2).

Taught by: Bendtsen/Hyland
One-term course offered either term
Activity: Studio
1.0 Course Unit

**VLST 103 3 Dimensions: Time and Space**
Through studio projects, readings and class discussion, this class will begin to address, both conceptually and physically, basic 3D structures and translations between 3D and 2D, as well as materiality, experiential phenomena, light and time-based processes. The interconnection between mediums in our cultural climate employs a wide range of tools, processes, and ideas. It is imperative that visual studies students recognize and think through these connections. The work produced and ideas confronted in this class will facilitate discussions and constructive criticism on the fundamentals of space and time via the experiential, conceptual, and the formal as essential elements of meaning. The interconnection between mediums in our cultural climate employs a wide range of tools, processes, and ideas. It is imperative that visual studies students recognize and think through these connections. The work produced and ideas confronted in this class will facilitate discussions and constructive criticism on the fundamentals of space and time via the experiential, conceptual, and the formal as essential elements of meaning. Prerequisite: This course is required of all Visual Studies Majors (stage 1 or 2).

Taught by: Freedman/Neighbor
One-term course offered either term
Activity: Studio
1.0 Course Unit
Notes: This course is required of all Visual Studies Majors (stage 1 or 2).

**VLST 209 Visual Culture through the Computer’s Eye**
Visual studies and the humanities more generally have thought about and modeled seeing of artworks for many centuries. What useful tools can machine learning develop from databases of art historical images or other datasets of visual culture? Can tools from machine learning help visual studies ask new questions? When put together, what can these fields teach us about visual learning, its pathways, its underlying assumptions, and the effects of its archives/datasets? Class project teams will ideally be composed of both humanities majors and engineering majors who will develop datasets and/or ask important questions of datasets, in addition to thinking and writing more generally about how computer vision could help in teaching and analyzing visual art. We are looking for a variety of students from different majors and schools to bring their diverse skill sets to the course. No programming knowledge is required. The course offers an example-based introduction to machine learning, so no prior knowledge of machine learning is required.

Taught by: Kostas Daniilidis
One-term course offered either term
Also Offered As: CIS 107
Activity: Lecture
1.0 Course Unit

**VLST 211 Perception**
How the individual acquires and is guided by knowledge about objects and events in their environment.

Taught by: Burge
Course usually offered in fall term
Also Offered As: PSYC 111
Activity: Lecture
1.0 Course Unit
VLST 212 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. Prerequisite: One semester of Statistics, and one of the following: PSYC 111 or 149 or 151 or 217, or permission of instructor.
Taught by: Burge
One-term course offered either term
Also Offered As: PSYC 311
Activity: Seminar
1.0 Course Unit
Notes: Dept permission required. Undergraduates only.

VLST 213 Images in Science
Pictures, diagrams, graphs, and (more recently) computer images are ubiquitous in modern science. Visualizations are crucial in the process of research; for communicating evidence, theories, and experiments to other scientists; and for transmitting scientific ideas to the public. But serious questions about the validity of using images to convey knowledge about nature have been raised from the earliest natural philosophers onwards, and understanding precisely what any particular scientific image does can be surprisingly difficult. In this class we will investigate, as historical and cultural artifacts, images related to the generation or transmission of knowledge about nature, knowledge that has claims to a privileged epistemological status. The focus will be on three kinds of visual depictions: images of the macrocosm (the universe as a whole), images of the microcosm (the body and its parts), and the visualization of theories and data. What are the material and technological conditions underlying these images? What can the images we examine tell us about the communities and societies, including our own, in which they were created? What do they reveal about the nature of the scientific enterprise, about the relationship between the sensible world and the mind, and about ideals concerning truth, objectivity, and morality?
Taught by: Baker
Course usually offered in spring term
Also Offered As: STSC 317
Activity: Seminar
1.0 Course Unit

VLST 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, PSYC 217
Prerequisite: BIBB 109 or PSYC 149
Activity: Lecture
1.0 Course Unit

VLST 211 Introduction to Philosophy of Mind
In this course, we will explore philosophical questions concerning the nature of minds. In seeking to understand the nature of minds, philosophers and psychologists have often used metaphors drawn from the forms of technology available to them. Leibniz once described the mind as a mill, while Freud compared the mind to a hydrolytic and electromagnetic system. In our own time, many have followed Alan Turing’s proposal and have viewed the mind as a special kind of computer; indeed, this “Computational Theory of Mind” forms the foundation for much work in contemporary cognitive science. In this class, we will explore the extent to which the computational theory of mind can adequately characterize the distinctive capacities involved in representing an external environment and having conscious experiences that is displayed by minds in general and human minds in particular.
Although an introductory class in philosophy or logic will aid students’ understanding, no prior familiarity with the philosophy of mind or cognitive science will be presumed.
Taught by: Domotor, Miracchi
Also Offered As: PHIL 244, PPE 244
Activity: Lecture
1.0 Course Unit
Notes: This course can count toward Sector A, (Stage 2 or 3) of the Visual Studies Major.

VLST 223 Philosophy and Visual Perception
Central issues in the philosophy of perception from the modern period, including: what we perceive, the meaningful content of perception, and its relation to a mind-independent external world. Additional topics may include: (1) color perception and color metaphysics; (2) object perception in its interplay between Gestalt organizational factors and background knowledge; (3) the role of ecological regularities in the formation of our visual system and in the ongoing tuning of the system to the environment; (4) the geometry of visual space and the phenomenology of visual appearances of size and shape; (5) the problem of how visual scenes are experienced by means of images. Readings from authors such as Bertrand Russell, R. W. Sellars, Tim Crane, Evan Thompson, Robert Swartz, Wolfgang Metzger, Nelson Goodman, Richard Wollheim, and William Hopp, among others.
Taught by: Hatfield, Connolly
One-term course offered either term
Also Offered As: PHIL 223
Activity: Seminar
1.0 Course Unit
Notes: This course can count toward Sector A, (Stage 2 or 3) of the Visual Studies Major.
VLST 232 World Art: 1400 to Now
This course is an introduction to the visual arts in a global context over the period from the early 1400s to the present. The content of the class varies according to the expertise of the instructors but will introduce students to selected and significant moments in artistic production in both the Western and Eastern hemispheres. Offering a broad historical overview of key techniques, movements, and artists, this course will cover aspects of art production around the world during an era of increasing economic exchange, colonization, and industrialization. Looking at painting, sculpture, architecture, and prints, as well as new media such as photography and film, the course will respond to the following questions: How does artistic practice change in this period? Who owns art? What is the role of the artist in society, and where is art made, exhibited, and consumed? Other topics to be covered are art's crucial role in the period's political debates and social transformations, including modernization and technological advances, as well as art criticism's import in forming public opinion. An introduction to art history, this course offers a wholly new perspective on the arts and cultures in this era of artistic innovation. This course fulfills Sector III: Arts and Letters and counts towards the History of Art major and minor requirements.
For BA Students: Arts and Letters Sector
Taught by: Dombrowski, Kim, Shaw, Davis
Course usually offered in spring term
Also Offered As: ARTH 102
Activity: Lecture
1.0 Course Unit

VLST 233 Art and Civilization in East Asia
Introduction to major artistic traditions of China and Japan and to the methodological practices of art history. Attention given to key cultural concepts and ways of looking, in such topics as: concepts of the afterlife and its representation; Buddhist arts and iconography; painting styles and subjects; and more broadly at the transmission of styles and cultural practices across East Asia. Serves as an introduction to upper level lecture courses in East Asian art history cultures. If size of class permits, certain sessions will be held in the University Museum or the Philadelphia Museum of Art.
For BA Students: Arts and Letters Sector
Taught by: Davis/Steinhart
Course not offered every year
Also Offered As: ARTH 103, EALC 013
Activity: Lecture
1.0 Course Unit
Notes: This course can count toward Sector B, (Stage 2 or 3) of the Visual Studies Major.

VLST 234 Introduction to Art in South Asia
This course is a survey of sculpture, painting and architecture in the Indian sub-continent from 2300 B.C., touching on the present. It attempts to explore the role of tradition in the broader history of art in India, but not to see India as 'traditional' or unchanging. The Indian sub-continent is the source for multi-cultural civilizations that have lasted and evolved for several thousand years. Its art is as rich and complex as that of Europe and diverse. This course introduces the full range of artistic production in India in relation to the multiple strands that have made the cultural fabric of the sub-continent so rich and long lasting.
For BA Students: Arts and Letters Sector
One-term course offered either term
Also Offered As: ARTH 104, SAST 200, SAST 500
Activity: Lecture
1.0 Course Unit
Notes: This course can count toward Sector B, (Stage 2 or 3) of the Visual Studies Major.

VLST 235 Introduction to Visual Culture of the Islamic World
A one-semester survey of Islamic art and architecture which examines visual culture as it functions within the larger sphere of Islamic culture in general. Particular attention will be given to relationships between visual culture and literature, using specific case studies, sites or objects which may be related to various branches of Islamic literature, including historical, didactic, philosophical writings, poetry and religious texts. All primary sources are available in English translation.
For BA Students: Humanities and Social Science Sector
Course not offered every year
Also Offered As: AAWM 635, ARTH 235, ARTH 635, NELC 285, NELC 685
Activity: Lecture
1.0 Course Unit
Notes: This course can count toward Sector B, (Stage 2 or 3) of the Visual Studies Major.

VLST 236 Art Now
One of the most striking features of today's art world is the conspicuous place occupied in it by the photographic image. Large-scale color photographs and time-based installations in projections are everywhere. Looking back, we can see that much of the art making of the past 60 years has also been defined by this medium, regardless of the form it takes. Photographic images have inspired countless paintings, appeared in combines and installations, morphed into sculptures, drawings and performances, and served both as the object and the vehicle of institutional critique. They are also an increasingly important exhibition site: where most of us go to see earthworks, happenings and body-art.
This course is a three-part exploration of our photographic present.
Course usually offered in spring term
Also Offered As: ARTH 294, ARTH 694, ENGL 063, GSWS 294
Activity: Lecture
1.0 Course Unit

VLST 237 Material History of Photography
Photography is a young medium and yet its history can be traced through differing narratives. Was the medium born in a French patent office, when the sun burned a handprint in silver salt, or when human eyes saw an inverted image projected into a dark space? Does photography reflect the perspective and biases of its inventors and users, or does it re-invent how we see the world? This seminar will take theoretical and material approaches to understanding the histories of photography. In addition to lectures and readings, students will handle original materials and make photographs using historic chemical-processes and styles.
Taught by: Vershbow
Course offered fall; even-numbered years
Also Offered As: ARTH 374
Activity: Seminar
1.0 Course Unit
VLST 239 Virtual Reality for Artists
With rapid developments in virtual reality technology, artists have new opportunities to exhibit work at any scale, create interactive and immersive experiences, and bridge distances between makers and viewers. This course will focus on creating art for virtual (and augmented) reality, and learning about the development of VR as a medium and how it is being utilized by contemporary artists. Students will create virtual exhibition spaces for images, videos, sculptures, and develop interactive work that can only exist in Virtual Reality. We will also develop 3D sculptures for augmented reality. We will develop our camera and editing skills for making still and video-based VR media and learn the fundamentals of 3D modeling in Blender. We will also develop advanced skills in Adobe Photoshop, Premier, and Rhino3d. Readings in this course will cover contemporary topics in VR and consider pre-VR immersive mediums such as Panorama painting and stereographic photography. Taught by: Vershbow
Course usually offered in fall term
Activity: Studio
1.0 Course Unit

VLST 250 Introduction to Printmaking
The course offers an introduction to several forms of printmaking including: intaglio, screen printing, relief, and monoprinting. Through in-class demonstrations students are introduced to various approaches to making and printing in each medium. The course enhances a student’s capacity for developing images through two-dimensional design and conceptual processes. Technical and conceptual skills are developed through discussions and critiques.
Course usually offered in spring term
Also Offered As: FNAR 250, FNAR 550
Activity: Studio
1.0 Course Unit

VLST 251 Introduction to Photography
This course is an introduction to the basic processes and techniques of black & white photography. Students will learn how to expose and process 35mm film, SLR camera operation, darkroom procedures & printing, basic lighting and controlled applications. It begins with an emphasis on understanding and mastering technical procedures and evolves into an investigation of the creative and expressive possibilities of making images. This is a project-based course, where students will begin to develop their personal vision, their understanding of aesthetic issues and photographic history. Assignments, ideas and important examples of contemporary art will be presented via a series of slide lectures, critiques and discussion. No previous experience necessary. 35mm SLR cameras will be available throughout the semester for reservation and checkout from the photography equipment room. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu
One-term course offered either term
Also Offered As: FNAR 271, FNAR 571
Activity: Studio
1.0 Course Unit

VLST 252 Sculpture Practices
As an introduction to traditional and contemporary three-dimensional practice, this course is concerned with the concepts and methodologies surrounding three-dimensional art making in our time. Students experiment with a variety of modes of production, and develop some of the fundamental techniques used in sculpture. In addition to these investigations, assignments relative to the history and social impact of these practices are reinforced through readings and group discussion. Processes covered include use of the Fab Lab, wood construction, clay, paper, mixed media, and more.
One-term course offered either term
Also Offered As: FNAR 145, FNAR 545
Activity: Studio
1.0 Course Unit

VLST 253 Drawing I
This course is designed to develop visual awareness and perceptual acuity through the process of drawing. Students learn to sharpen perceptual skills through observational drawing, and to explore the expressive potential of drawing. A variety of problems and media will be presented in order to familiarize students with various methods of working and ways of communicating ideas visually. Subject matter will include object study, still life, interior and exterior space, self-portrait and the figure. Different techniques and materials (charcoal, graphite, ink, collage) are explored in order to understand the relationship between means, material and concept. Critical thinking skills are developed through frequent class critiques and through the presentation of and research into historical and contemporary precedent in drawing.
One-term course offered either term
Also Offered As: FNAR 123, FNAR 523
Activity: Studio
1.0 Course Unit

VLST 260 Photography Practices
This course is an introduction to the basic principles, strategies and processes of photographic practice. It is designed to broaden the student’s aesthetic explorations and to help the student develop a visual language based on cross-disciplinary artistic practice. Through a series of projects and exercises students will be exposed to a range of camera formats, techniques and encouraged to experiment with the multiple modes and roles of photography - both analogue and digital. Attention will also be given to developing an understanding of critical aesthetic and historical issues in photography. Students will examine a range of historical and contemporary photowork as an essential part of understanding the possibilities of image making. This course is primarily for freshman and sophomores.
One-term course offered either term
Also Offered As: FNAR 150
Activity: Studio
1.0 Course Unit
VLST 261 Video I
In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment-based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assigned. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices.
For BA Students: Humanities and Social Science S
One-term course offered either term
Also Offered As: CIMS 061, FNAR 061, FNAR 661
Activity: Seminar
1.0 Course Unit

VLST 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 264, DSGN 636, FNAR 264, FNAR 636
Activity: Studio
1.0 Course Unit

VLST 265 Digital Photography
This class offers an in-depth technical and conceptual foundation in digital imagery and the opportunity to explore the creative, expressive possibilities of photography. Students will become proficient with the basic use of the camera, techniques of digital capture, color management and color correction. They will also develop competency in scanning, retouching, printing and a variety of manipulation techniques in Photoshop. Through weekly lectures and critiques, students will become familiar with some of the most critical issues of representation, consider examples from photo history, analyze the impact of new technologies and social media. With an emphasis on structured shooting assignments, students are encouraged to experiment, expand their visual vocabulary while refining their technical skills. No previous experience is necessary. Although it is beneficial for students to have their own Digital SLR camera, registered students may reserve and checkout Digital SLR cameras and other high-end equipment from the department. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu
One-term course offered either term
Also Offered As: FNAR 340, FNAR 640
Activity: Studio
1.0 Course Unit

VLST 273 History of Photography
A history of photography and theories of photography from 1839 to the present. Photography’s origins are rooted both in artistic desire and technological ingenuity. Some of photography’s inventors identified more as artists than engineers. At many points in the history of the medium, the question remains open whether new forms of artistic expression are driven by new technologies, or whether new technologies emerge to fulfill the desires of artistic imagination. This class will address photography’s relationship with painting, print, and drawing. It will examine the effect of photography on portraiture, landscape, depictions of motion, and abstraction. We will also investigate the changing cultural perception of photography as an artistic medium from the 19th to the 21st century.
Taught by: Vershbow
Course not offered every year
Also Offered As: ARTH 273, ARTH 673
Activity: Lecture
1.0 Course Unit

VLST 301 What is Visual Studies?
Visual Studies 301 is a seminar-format course that challenges students to develop independent ideas about how the eye, the mind and the image that is created therein, all work together to inform our conception of the world at large. Rather than present a unified viewpoint, the course asks the question, “What is visual studies?” by examining parallel and sometimes antagonistic approaches to the ways that human beings understand sight and the concept of visuality. Over the course of the semester, students will discuss and write about various approaches to vision, examining this contested field through the lenses of several disciplines -- including psychology, philosophy, and art history. By parsing and assimilating diverse ideas, students will decide for themselves what are the most pertinent and relevant approaches to the various avenues of research that present themselves in the emerging interdisciplinary field of Visual Studies. Prerequisite: This course is required of all Visual Studies Majors (stage 2).
One-term course offered either term
Prerequisite: VLST 101
Activity: Seminar
1.0 Course Unit
VLST 303 The Rise of Image Culture: History and Theories
Today images are ubiquitous; two centuries ago they were rare. This seminar considers key historical and theoretical contexts for this change and its social consequences. With the help of some of the strongest critics and theorists of image culture, we will consider five interrelated aspects of the rise of image culture. First, we will explore how new media and mechanical reproduction has changed the idea of the image over the past three centuries in an socio-economic context. Second, we will explore how images operate through the psyche and gaze and how that operation is tied to power. Third, we will examine how representations make meaning and form identity in coded systems. Fourth, we will consider the relationship between visual space and concepts of reality. And finally, we will interrogate aspects of materiality and meaning in visual things and images of the body.
Taught by: Leja
Course not offered every year
Activity: Seminar
1.0 Course Unit

VLST 305 What is an Image?
The course explores various concepts of images. It considers natural images (as in optics), images as artifacts, virtual images, images as representations, and works of art as images. Themes to include: the image controversy in cognitive science, which asks whether some cognitive representations are irreducibly imagistic; the question of whether some images resemble what they represent; the development of the concept of the virtual image and of three-dimensional images; the notions of pictorial representation and non-representational images in art. Readings from C. S. Peirce, Nelson Goodman, Robert Hopkins, Dominic Lopes, W. J. T. Mitchell, John Kulvicki, and Mark Rollins, among others. Prerequisite: This course can count toward Sector Sector A, (Stage 2 or 3) of the Visual Studies Major.
Taught by: Verstegen
Also Offered As: VLST 505
Activity: Seminar
1.0 Course Unit

VLST 309 Photography for Scientists and Artists
Artists and scientists are likeminded when they make an image in pursuit of new insights. Pictures can reveal the composition of a specimen, expose a person's character, capture a place's distinctiveness, or produce a new occasion for intimacy. Rosalind Franklin's famous "Photograph 51" of DNA resulted from a desire to see the physical shape of heredity. The artist Shimpei Takeda places film directly on the ground in Fukushima to create a blind measurement of the radioactivity that remains in the earth. This course will introduce photography as an investigative medium for art and science. We will begin with learning the fundamentals of photography while considering ways in which photographs have changed and continue to change the way we perceive space and time. As the class progresses, students from the arts and sciences will work together to learn specialized photographic techniques and complete assignments that explore photography as an investigative medium. Students must have access to a digital camera and a computer with imaging software.
Taught by: Vershbow
Course usually offered in spring term
Activity: Seminar
1.0 Course Unit