

School of Art Courses

Note on Course Numbers

Each Carnegie Mellon course number begins with a two-digit prefix which designates the department offering the course (76-xxx courses are offered by the Department of English, etc.). Although each department maintains its own course numbering practices, typically the first digit after the prefix indicates the class level: xx-1xx courses are freshmen-level, xx-2xx courses are sophomore level, etc. xx-6xx courses may be either undergraduate senior-level or graduate-level, depending on the department. xx-7xx courses and higher are graduate-level. Please consult the Schedule of Classes (<https://enr-apps.as.cmu.edu/open/SOC/SOCServlet>) each semester for course offerings and for any necessary pre-requisites or co-requisites.

60-101 Concept Studio: The Self and the Human Being

Fall: 10 units

Concept Studio: The Self and the Human Being is first of a sequence of six studio courses designed to develop a personal approach to generating art and to learning transferable conceptual skills. The topics of the first three Concept Studios are addressed through a sequence of structured, media-independent projects. Open to freshmen admitted to the School of Art, or by instructor permission.

60-104 Contemporary Issues Forum

Fall: 6 units

This introductory class presents to students a diverse range of contemporary issues in the visual arts. It is organized in a thematic way rather than chronologically. There will be readings, discussions, and papers. Lecture/discussion format. All students are required to attend the School of Art lecture series. Open to freshmen in the School of Art, or by instructor permission.

60-105 Critical Theory in Art I

Spring: 9 units

Critical Studies 1 is the first part of a year-long course intended to introduce CMU's students to key readings in the history of artistic theory, studied in relation with the concurrent development of Western art. It is devoted to the period ranging from the 1500s to the end of the 1800s and covers major artwork and theories spanning from the Renaissance to Symbolism and Primitivism. The course is structured as a seminar discussion of theoretical texts, integrated with lectures. Readings will introduce students to the historical and critical background of the themes discussed in class and familiarize them with the varied methodologies and argumentative styles proper to art criticism, critical theory and philosophy. Open to freshmen in the School of Art, or by permission of the instructor.

60-106 Critical Theory in Art II

Spring: 9 units

Description TBA.

60-110 Electronic Media Studio: Introduction to the Moving Image

Spring: 10 units

Electronic Media Studio: Introduction to the Moving Image is an introduction to the computer as a dynamic tool for time-based media production. In this course students develop skills in digital video and audio production through the exploration of narrative, experimental, performance, documentary and animation themes and forms. Historical and contemporary works are presented and discussed to provide a context for studio projects.

60-125 IDeATe Introduction to 3D Animation

Spring: 12 units

[IDeATe course] Introduction to 3D Animation is designed for students interested in exploring the exciting and increasingly popular world of computer animation. Using Autodesk Maya, this course will cover each concept of the animation production pipeline through a series of class demos, production assignments, and guest lectures from industry professionals. Some topics will include modeling, rigging, layout/camera work, character animation, lighting, and rendering. This course will also delve into motion capture technology for 3D animation, making use of CMU's Vicon and Optitrack motion capture systems. Students with little or no prior animation experience are encouraged to sign up for the course.

60-126 Introduction to Performance Capture and Rendering

Intermittent: 6 units

[IDeATe course] This mini is designed for those interested in the growing world of performance capture and visual effects. Utilizing the advanced motion capture facilities at Carnegie Mellon and the Kinect, students will learn how to capture motion from performance and apply it to CG characters and objects. While this technique is found in many video games and vfx movies, it has the ability to create endless possibilities within the realm of computer graphics and experimental animation/art. Students will also become more familiar with the process of rendering to create the necessary polish for their animations/visualizations. CG Lighting, camera work, and material shading are just a few of the many topics covered in this course.

Prerequisites: 15-104 Min. grade C or 62-150 Min. grade C

60-130 3-D Media Studio I

Fall: 5 units

An introduction to three-dimensional form. Various materials and methods are explored through projects covering a broad range of sculptural concerns. Art majors must complete one Mini-1 course and one Mini-2 course to satisfy the 3DI requirement. Students are required to select two of the following four sections: Sculptural Fabrication (Wood & Welding); Clay Sculpture; Small Metals; and Soft Sculpture. Materials fee may be required. Open to freshmen in the School of Art, or by instructor permission.

60-131 3D Media Studio II

Spring: 5 units

Four unique mini classes offer an introduction to basic language and approaches of sculptural practice. Multiples, Mold Making, and Casting: focus on the use of repeated objects; Soft Sculpture: exploring the use of soft materials in wearable art and objects; Mixed Media/Mini-Installation: emphasis on mixed media to create a composition with a relationship of objects in space; and Augmented Sculpture: integrating projection into a sculptural practice. This section will look at projected video onto physical forms within an installation setting and setup multi-channel videos with Raspberry Pi. Art majors must complete one Mini-3 course and one Mini-4 course to satisfy the 3D Media II requirement. Materials fee may be required. Open to School of Art freshmen or by instructor permission.

60-141 Black and White Photography I

Fall and Spring: 10 units

This course will teach you the basic craft of photography from exposure of the negative through darkroom developing and printing to print finishing and presentation. Content includes student presentations, class discussions, shooting assignments, darkroom sessions and class critiques. We will concentrate not only on the technical aspects of photography, but also the aesthetics of seeing with a camera. The course concentrates on photography as a fine art — what is unique to it and the concerns that are shared with other visual arts, such as composition, tonal values, etc. and aims to equip students with an understanding of the formal issues and the expressive potentials of the medium. Lab fee and 35mm manual camera required. Each student is responsible for the cost of paper and film.

60-142 Digital Photography I

Fall and Spring: 10 units

This course explores digital photography and digital printing methods. By semester's end students will have knowledge of contemporary trends in photography, construction (and deconstruction) of photographic meaning, aesthetic choices, and the use of color. Students will learn how digital cameras work, proper digital workflow, RAW file handling, color management and Adobe Photoshop. Through the combination of the practical and theoretical, students will better define their individual voices as photographers. No prerequisites.

60-150 2D Media Studio: Drawing

Fall: 10 units

This course focuses on the language, materials and concepts of drawing as foundation for all the visual arts. Initial emphasis on the development of perceptual, analytical, and structural drawing skills with increasing attention to idea development. Exposure to methods of creating pictorial and illusionistic space; recording the external world of light and form; and making visible the internal world of the heart, the mind, the soul. Experience with line, texture, tone, shape and mass; in a variety of wet and dry drawing media. Open to freshmen in the School of Art, or by instructor permission.

60-160 2D Media Studio: Imaging

Spring: 10 units

A continuation of Two-Dimensional Media Studio: Drawing. Includes an expansion of drawing to include multimedia approaches, painterly issues, digital input/output and work with digital image processing tools.

Prerequisites: 60-157 or 60-150

60-200 Sophomore Review

Fall and Spring

Students present their work and their ideas about their work to a faculty committee. A successful review is required for advancement to the junior year. Although this is a non-credit course, it is required of all Art (BFA, BHA, BSA, and BCSA) sophomores.

60-201 Concept Studio: Space and Time

Fall: 10 units

Concept Studio: Space and Time is a continuation of Concept Studio: The Self and the Human Being with a focus on space and time through projects of increasing complexity. Such topics as biological time, historical time, psychological time, celestial time, clock time, and public space, private space, mathematical space, and virtual space are addressed through projects. Open to sophomores in the School of Art, or by instructor permission.

Prerequisite: 60-101

60-202 Concept Studio: Systems and Processes

Fall: 10 units

"Systems and Processes" A continuation of Concept Studio with a focus on Systems and Processes. The utility, discovery, and the generation of systems and processes are addressed through projects. Open to sophomores in the School of Art, or by permission of instructor.

60-203 Concept Studio: EcoArt

Intermittent: 10 units

An interdisciplinary studio course that provides an introduction to an art practice focused primarily on ecology and the environment. Combines the exploration of the history of environmentalism and ecological art with the production of creative projects to address related issues such as sustainability. Shorter initial exercises and collaborative projects will precede and evolve into larger and more extended individual and/or collaborative projects. Considers both indoor and outdoor sites with an emphasis on context and the use of natural and recycled materials. Open to freshman and sophomores in the School of Art and to students in other disciplines.

60-204 Concept Studio: Networked Narrative

Intermittent: 10 units

Networked Narrative is a studio class that uses social networking sites such as Facebook, Twitter and YouTube as venues to develop fictional stories. The class will explore traditional and experimental narrative forms in a variety of media. Students will develop and produce narrative events that are exhibited on their fictional character's various social networking sites.

60-205 Critical Theory in Art III

Fall: 9 units

Explores the diverse roles of artists in the complexity of modern society from the Industrial Revolution through 1960. Contextual issues include the relationship of artists and art to culture, politics, economics and modern technologies. Attention is paid to the decline of patronage, the diminishing role of the academy and the emergence of an avant-garde and art promotion. Open to sophomores in the School of Art, or by instructor permission.

60-206 Critical Theory in Art IV

Spring: 9 units

This course traces the shifts in art from late Modernism until our After Post era. It will examine the diversity of art produced, as well as the critical ideas that arose over a span of 60 years. The rise of a pluralist / conceptual art will be discussed within the context of social change, technology and globalization. Open to sophomores in the School of Art, or by instructor permission.

Prerequisite: 60-205

60-210 Electronic Media Studio: Introduction to Interactivity

Fall: 10 units

Electronic Media Studio: Introduction to Interactivity is an introduction to software programming and physical computing within the context of the arts. In this course students develop the skills and confidence to produce interactive artworks using audiovisual, networked and tangible media. This fall, Section B (taught by Paolo Pedercini) has an emphasis on interactive game design.

60-212 Electronic Media Studio: Interactivity and Computation for Creative Practice

Intermittent: 10 units

This is an intermediate level course in "creative coding", interactive new-media art, and computational design. Ideal as a second course for students who have already had one semester of elementary programming (in any language), this course is for you if you'd like to use code to make art, design, architecture, and/or games — AND you're already familiar with the basics of programming, such as for() loops, if() statements, and arrays. This course satisfies the EMS-2 (60-210: Interactivity) requirement for BFA and BXA-Art majors. As with EMS-2, students in this course will develop an understanding of the contexts, tools, and idioms of software programming in the arts. Unlike EMS-2, this course additionally satisfies the computing portal requirement for CFA and Dietrich students pursuing IDEATe minors and concentrations. (Students with no prior programming experience should register instead for 15-104, 15-110, or 15-112.) This is a "studio art course in computer science," in which the objective is art and design, but the medium is student-written software. The course develops skills and understanding of text-based, imperative programming techniques in a variety of popular open-source arts-engineering toolkits, including p5.js (JavaScript), Processing (Java), and openFrameworks (C++), with the aim of applying such skills to interactive art and design, information visualization, generative media, and other creative cultural practices. Rigorous programming exercises will develop the basic vocabulary of constructs that govern static, dynamic, and interactive form. Topics include the computational manipulation of: point, line and shape; texture, value and color; time, change and motion; reactivity, connectivity and feedback; interactive graphics, sound, and simulation; and the incorporation of various modes of input (sensors, cameras) and multimedia output.

Prerequisites: 15-110 Min. grade C or 15-112 Min. grade C or 15-104 Min. grade B

60-215 Visualizing Issues with Images and Sound

Intermittent: 5 units

In this mini, students will use documentary photography to explore their lives and immediate communities to help better understand and explain the issues facing their generation. Students will choose a topic such as the uncertain economy, environmental concerns or diversity and produce a series of images and conduct audio interviews within the mini term. Emphasis will be placed on aesthetics and skills needed to be a competent storyteller while learning values that are crucial for explanatory visual reporting. We will also look at the work of other photographers who have used this method to better understand society. Knowledge of Photoshop and Garage Band is helpful, but not required.

60-220 IDEATe Technical Character Animation

Fall: 10 units

[IDEATe course] With an emphasis on character animation, this course will explore the whole production pipeline of 3D Animation from initial concept to rendered result through the use of Maya. Through a series of technical assignments, in class demonstrations, and guest lectures from industry professionals, students will come to learn the basic principles of animation and work up to more advanced techniques. Some specific animation areas that will be covered include locomotion, pantomime/acting, dialogue, set driven keys, and blend shapes. Students will also learn more technical/advanced approaches to other production areas such as modeling, texturing, rigging, rendering/lighting, and layout.

Prerequisites: 62-150 or 60-212 or 15-104

60-223 IDeATE: Introduction to Physical Computing

Fall: 10 units

[IDeATE portal course] Physical computing refers to the design and construction of physical systems that use a mix of software and hardware in order to sense and respond to the surrounding world. Such systems include digital+physical toys and gadgets, kinetic sculpture, functional sensing and assessment tools, mobile instruments, interactive wearables, etc. This is a project-based course that deals with all aspects of conceiving, designing and developing projects with physical computing: the application, the artifact, the computer-aided design environment, and the physical prototyping facilities. The class consists of students from different disciplines who collaboratively synthesize and implement several systems in a short period of time. The course is organized around a large set of essential skills that students must gain in order to effectively tackle physical computing problems. It is then deployed through a series of quick group projects that utilize the essential skills and challenge students to not only consider HOW to make things, but also for WHOM we design, WHEN the time is ripe, and WHY the making is worthwhile/necessary. Upon completion of this course the students will be able to: work in a mixed physical-digital environment and laboratory, make effective use of standard hardware and software tools for physical computing, approach complex physical computing problems with a systematic overview that integrates iterative research and design steps, generate systems specifications from a perceived need, partition functionality between hardware and software, produce interface specifications for a system composed of numerous subsystems, use computer-aided development tools for design, fabrication and testing and debugging, evaluate the system in the context of an end user application or experience. Please note that there will be usage/materials fees associated with this course.

60-233 Portraiture: The Space Between

Intermittent: 10 units

There is a distance there. To me it's often a picture of the space between us. - Alec Soth Portraiture holds a unique place within photography for its direct, consensual and often collaborative relationship between the subject and the photographer. This course will explore theoretical and practical aspects of portrait photography in both studio and environmental settings, providing students with an understanding of the genre and the technical ability to create portraits in a variety of locations and conditions. Students will gain knowledge in the development of portraiture through the work of notable figures in the medium's history, including August Sander, Dorothea Lange, Richard Avedon, Milton Rogovin, Platon, Rineke Dijkstra and Alec Soth, while utilizing film and digital equipment to learn studio techniques, approaches to artificial and natural lighting, image processing and presentation. Class discussions, readings and critiques will provide an outline for completing both single and serial image assignments.

60-240 Unfolding Environments: The Intersection of Person and Place

Intermittent: 10 units

This course will use photography to explore our surrounding environments. Assignments will focus on editing and image sequencing, combining the practices of portraiture, landscape, still life and observational photography to create narrative work that explores the complex connections between people, objects and the spaces they inhabit. Throughout the course, students will strengthen their understanding of the ways in which these tangible and abstract elements of our environments work together, while also developing their technical abilities by working with color and black and white images and varied light sources. Students will also learn approaches to project development and digital workflow. Discussions, readings, gallery visits and critiques will provide an outline for completing assignments. The class will study work and books by notable and emerging figures in the medium, including Robert Adams, Rineke Dijkstra, Carolyn Drake, Roy DeCarava, Milton Rogovin, Judith Joy Ross, Rinko Kawauchi, Alec Soth, Larry Sultan, Carrie Mae Weems and Susan Worsham. Required readings will include essays and short stories by Wendell Berry, Rebecca Solnit, Robert Walser and Albert Camus.

60-241 Black and White Photography II

Fall and Spring: 10 units

Black and White Photography II allows you to gain experience with medium and large format film cameras that aren't available at many universities. View cameras remain the state of the art in control and quality for both analog and digital workflows; knowing how to use one is a valuable professional skill. You can make stunning large-scale prints using either darkroom or inkjet processes; imagine the resolution of an 8x10 or 11 x14 inch sensor and you begin to see the potential of the view camera. This course emphasizes aesthetic development and personal artistic growth through individual tutorials and group critiques. As an advanced student, you have access to an unusual assortment of panoramic and pinhole cameras that will change the way you make photographs, revealing unknown perspectives. Additional topics include digital process though negative scanning and inkjet printing, advanced monotone printing methods, and a focus on exhibition and folio presentation. Cameras will be supplied for this course.

Prerequisites: 62-141 or 60-141

60-242 Digital Photography II

Intermittent: 10 units

Digital Photography II combines digital and analog processes in both color and black & white. Students will gain experience with digital workflow, analog to digital conversion, virtual drum scanning and large format digital printing. Topics include trends in contemporary photography, professional practices, project development, narrative and serial work, and portfolio presentation. Students will be expected to develop their own self-directed projects throughout the semester culminating in a cohesive portfolio of their work. Readings, assignments, artist visits, critiques and discussions will give context to the practical work and help develop a wide ranging familiarity with the subjects. Prereq: 62-141 or 62-142 or equivalent or consent of instructor

Prerequisites: 60-141 or 62-142 or 62-141 or 60-142

60-244 Contemporary Photo Theory

Intermittent: 9 units

Because, you know, the photographs are more a question than a reply. (Sebastiao Salgado) A photograph is a moral decision taken in one eighth of a second, or one sixteenth, or one one-hundred-and-twenty-eighth. (Salman Rushdie) This seminar investigates current topics in photography and the image; our goals are twofold: identification of photo theory as it applies to current practice from both the viewpoint of maker and consumer. The course is designed to address philosophical issues for photographers working now and will favor conversation over written work; students are expected to fully participate in critical analysis and discussions. Readings include works by Roland Barthes, Stephen Shore, Susan Sontag, Hollis Frampton, John Szarkowski, Robert Adams, Italo Calvino, Berenice Abbott, John Berger and James Elkins. No pre-requisites.

60-245 Portrait Photography

Intermittent: 10 units

Portrait Photography explores the emotional and visual process of collaboration between subject and photographer that creates a photograph. We use cameras of all formats and levels of sophistication to create portraits in the studio and on location. Each photographer is challenged to find and exploit available light, and create artificial light to complete his or her vision. The class will explore a wide range of digital and darkroom strategies to support and add richness to their final prints. Through film and video photographers will meet some of the masters of this form like Arbus, Newman, Avedon, and Penn. Together we will take advantage of any opportunities to visit exhibitions and photographer's studios. Lab fee required. Prerequisites: As listed or consent of instructor.

60-250 2D Media Studio: Painting

Fall and Spring: 10 units

A pragmatic introduction to the tools, materials, and techniques of painting, including instruction in the fabrication of sound painting supports and the application of permanent grounds. Students become conversant with the range of visual options unique to the vocabulary of painting. Open to sophomores in the School of Art, or by instructor permission.

Prerequisites: 60-160 or 60-151

60-251 2D Media Studio: Print Media

Fall and Spring: 10 units

Printmaking is a process based medium that produces multiples of original artworks. Students will create four works on paper using the following printmaking approaches: Relief (carved), Intaglio (engraved), Lithography (planographic), and Screen Printing (stencil). Each technique's unique set of materials, processes and aesthetics will be explored. This course focuses on traditional tools and processes, but will include utilization of digital images and sources through a critical lens. While primarily focused on the learning of fundamental techniques, the class will also expose students to ways that Print Media can be a tool (physically and conceptually) in contemporary practice. Open to sophomores in the School of Art, or by instructor permission.
Prerequisite: 60-160

60-280 Introduction to Contextual Practice

Spring: 10 units

For some time now art has moved out of gallery and museum spaces and into all facets of public life, where complex social situations and diverse audiences have become important parts of the work. In the past this might have been called Public Art, but today new strategies are being used that challenge public art's tradition of static sculptures and embrace more dynamic forms of public engagement. As its name implies, Contextual Practice embraces the context or social conditions in which an artwork exists as part of the material of that work. Evolving out of the history of site-specific, conceptual, and performance art practices, Contextual Practice covers a range of exciting new methods to making art in the public including street art, interactive social media, environmental art, hacktivism, participatory art, guerilla performance, project-based community art, and urban interventions. Students in this field-based class will create projects that work with the social dynamics of a variety of on and off-campus and online public contexts. We will research new trends in public engagement through art, architecture, and design, as well as politics, ecology, sociology, and economics. Fundamentally, this class asks students to experiment with how their art practice can intersect directly with the real world (outside of the traditional art venues) and how they can proactively create new sites and audiences for their work.

60-298 Photography and Reality

Intermittent: 10 units

Photography's unique relationship with reality is the source of the medium's tension as well as its creative potential. This class will explore photography's tenuous status as a vehicle for truth and interrogate the mysterious rift between the "real world" and photographic representation. Students will be introduced to historic and contemporary practices, from "documentary style" images to abstract formalism. We will examine the history of art photography utilizing the book form with an emphasis on how meaning is created through the photographic series and sequencing of images. A series of slideshows, readings, and discussions will provide a framework for conversation and critique of student projects. Recognizing photography as a conduit for examining our ideas and experiences of the world, students will be expected to conceive, execute and present photographic projects that articulate a deeper understanding of the potential of photographic communication and will encourage a closer look at the photographic illusion as it appears in our ever expanding digital image-sphere.

60-333 Character Rigging for Production

Intermittent: 10 units

In computer animation, rigging is the art of building a digital skeleton and control system to drive the animation of a character or object. This particular course will focus on the process needed to create fully articulated characters that are strong enough for film and/or video game production. We will start with rigging fundamentals to learn proper joint orientation for skeleton creation, focus on skinning techniques for attaching the skeleton to the character afterwards, and then work on building a system of controls to move the character in compelling ways. Certain topics will include kinematics, set driven keys, direct connections, space switching, corrective blendshapes, custom attributes, and deformation. Students interested in the artistic and technical sides of computer animation are encouraged to enroll. Previous experience with Autodesk Maya/3D animation is preferred.

60-352 NOISE: Toward a Critical Theory of Sound and Hearing

Intermittent: 9 units

This seminar will explore audio art in its widest sense: sound sculpture and installations, radio art, the soundtrack, just about anything audible but not conceived as music. Special focus on the production (and reception) of sound by artists, amplifying those creative efforts that, in having explored acoustics, soundscapes, and listening, might also serve to inspire students to incorporate sound in their own work. Contemporary critical theory, by and large, is still glaringly silent on aurality and auditory phenomena; it seriously fails to consider sound as an object of study, instead focusing quite exclusively on visual culture (film, TV, video, computer screens, which are, of course, technologies of vision and sound). This seminar will address this roaring silence by examining some suggestive but disparate theoretical work related to sound and by engaging with a range of artistic practices that explore the production and reception of sound itself.

60-353 Media Performance: History, Theory, and Contemporary Practice

Intermittent: 9 units

During the last decade of the twentieth century, new technologies have transformed the way we think about live performance. By examining the use of media (analog and digital) across the areas of sound/music, dance, theater, performance art, gaming, and installation, this course will traverse multiple theories and practices of performance history. With an eye to how changing theories of performativity have influenced how artists think about what it means to "perform," this seminar, in a sense, will be engaged in both philosophical and aesthetic research about how technology has changed the conventions of performative artistic practice. What was the role of technology in the dematerialization of the object of art? How have ideas about virtual, parallel worlds changed the way artists think about the "performing body?" If technology once acted as a prosthetic device, increasing an artist's sensual and perceptual world, what happens to the role and impact of an artist's work in the seemingly inert realms of programming or the increasingly autonomous areas of Robotic Intelligence?

60-355 Rights to Representation: Indigenous Peoples and Their Media

Intermittent: 9 units

For decades anthropologists have been "picturing" others, in images as well as in words. This course explores the turn-around: when those who have been subjects of description take the opportunity to represent themselves. After a brief history of visual anthropology, we will concentrate on modes of representation developed by indigenous peoples. We will explore the meanings of "indigenous," in connection with various modes of representation, including film, dramatic performances, art, and the Internet. During the semester, we will compare-across time and space-the purposes for which media are used, the transmission of cultural values in media, the organization of production, and the intended audience. Anthropological method and theory will guide our inquiries. Course materials include disciplinary readings, documents dealing with indigenous rights, and examples of the work of indigenous peoples.

60-362 Art Writer

Intermittent: 9 units

ART WRITER will strive to bring together the intersecting discourses of artists use of writing as an object, art criticism, as well as experiments by both artists and critics to use theory as invention. The idea of experiment implied here emphasizes the urgency that art writing move beyond its own history, beyond the received understanding of its proper practices in order to propose new modes of critical reflection. The form and material force of language will be explored through the conceptual and critical work of Dan Graham, Lawrence Wiener, Donald Judd, Lee Lozano, Joseph Kosuth, Vito Acconci, Mel Bochner, Eleanor Antin, the international projects of Art and Language, Fluxus, as well as more recent iterations. This is a writing intensive seminar with experimentation at its core. Members will workshop their writing: revise, rethink, perform, and publish.

60-366 Culture in the Public Realm

Intermittent: 9 units

The seminar offers a discerning critical overview of key concepts about culture, public space & the public sphere. We will introduce & critically explore the historical, theoretical & practical production & use of 'public space', & art/culture beyond the museum or gallery. We will consider the historical evolution of the city as both an actual & theoretical entity. The class will explore urban environments in terms of economics, demographics, political, cultural production & psychology & the city of Pittsburgh will function as our site laboratory. We will inquire about the function of public art? what happens when space is required for the public realm for a means of cultural production that aims to yield some form of transformative effect for the ?public? or citizens at large. Moreover the term "public" is an important topic to be investigated: Who is the public? Who is the audience? This interdisciplinary course will consider & examine the interplay of artists & their public & how certain belief systems of a society at a specific time are able to influence a culture's perception of art. What is the role of the artist, critic, curator & urban planner in relation to the public & what is at stake in utilizing public space as a platform for art & other forms of cultural production? We will reflect on why have we become in recent times so preoccupied with public space as a platform for cultural production. Changing attitudes among artists & in museums have played a role in this cultural shift & theory. We will query a range of cultural mediums in order gain insights into the construction of public culture. The means to inspect the varied issues will go beyond assigned readings: it will include class discussions, personal reflections, writings, videos & guest speakers from the field of architecture, public policy, art, & public art. A conjoint class student project will take place to further probe this subject.

60-371 Breathless: International New Wave Cinemas

Intermittent: 9 units

What does Jean-Luc Godard's "Breathless [A'bout de souffle] (1959) have in common with Wong Kar-Wai's "In the Mood for Love" [Fa yeung nin wa] (2000)? What does Satyajit Ray's "Pather Panchali" (1955) share with Mark LaPore's "The Glass System" (2000)? By examining an array of films from the classic days of International New Wave Cinemas, beginning with French Nouvelle Vague, Indian "Parallel Cinema," as well as German, Italian and Japanese innovations and moving to contemporary (and experimental) film movements in Iran, Korea, Hong Kong, Eastern Europe, and the US, we will explore the ways a handful of young directors found novel ways to fund and shoot their movies in direct defiance of commercial, narrative, and cultural norms. By focusing on mise-en-scene over thematics, on-site locations over studios, lesser-known actors over box-office idols, and small production teams over professional crews, these directors were able to turn lo-fi aesthetics and financial shortcomings into a radical new filmic style. Especially central here will be how forms of cinematic experimentation translated internationally—and how these approaches continue to challenge hegemonic forms of media culture.

60-376 Large Format Photography: The Antiquarian Avant-Garde

Intermittent: 10 units

This course takes part in the anti-digital movement by exploring the roots of photography. Students will shoot with an array of large format cameras and use 19th and 20th century processes to create "one-of-a-kind" photographic images. Course topics include non-silver printing processes, pinhole photography, and contemporary tin-types. Prerequisites: 60-141/62-141/ equivalent or consent of instructor. Prerequisites: 62-141 or 60-141

60-380 Color Photography and Digital Output

Fall and Spring: 10 units

This is a course using digital photography with digital printing methods. Students will gain an understanding of color theory and aesthetics, while better defining their individual voices. By semester's end, students will have a finely printed body of work using Mac OS, RAW file handling, color management and Adobe PhotoShop. Prerequisites: 62-141 or 60-141 or 51-265

60-397 Art, Conflict, and Technology in Northern Ireland

Spring: 12 units

Art, Conflict and Technology in Northern Ireland is a 9-unit course cross-listed in the School of Art and the Department of English, with a required 3-unit recitation in the Robotics Institute. Throughout the term students will be introduced to a history of social strife in the North of Ireland from the 1960s to the present, and efforts to reconcile differences in the contemporary period. We will consider the influence of advancing technology on how narratives are shared within a community and worldwide. We will reflect upon and analyze a variety of literary and visual art sources from the chosen time period, while also learning how to create mixed-media projects using Gigapan and Hear Me systems from Carnegie Mellon's CREATE Lab in the Robotics Institute. If you have ever considered how artists explore societal strife through their writing or visual arts practice, if you are interested in the social and political influences of evolving technology, or if you are a practicing artist who uses advancing technology as a tool for individual expression, this integrative course is for you. Throughout the semester we will examine the practice of a range of visual artists that include Rita Duffy, John Kindness and Willie Doherty and writers and dramatists like Dermot Healy, Patrick McCabe and Christina Reid. Students will learn how to use CREATE Lab's Gigapan and Hear Me systems as platforms for exploring the content presented in class and for the development of final projects. We will travel to Belfast for spring break 2016, to meet a variety of writers and artists whose work we will study, and stakeholders in reconciliation efforts throughout the region. In addition to weekly lectures on Thursdays throughout the term, students will have a six-week lab on Tuesdays.

60-398 Social History of Animation

Intermittent: 9 units

Social History of Animation will investigate the history of animation from early experiments with trick film through the development of major studios, to independent and web based work. Animation will be analyzed and discussed in relation to the social movements and technological innovations that effected animators and their work. This class will read related texts and view examples from around the world to explore animation as a means for personal expression and as a reflection of the context in which they were made.

60-399 Art History/Theory Independent Study

Fall and Spring: 9 units

A tutorial course in which an Art student works individually on a self-generated project under the supervision of a School of Art faculty member. Prior to enrolling in Independent Study, the student must complete an "Independent Study Proposal" form (available in the bins on the 3rd floor of CFA) which is signed by the faculty member and the Assistant Head of the School of Art. Prerequisite: Art junior or senior status, or by instructor permission.

60-400 Senior Review

Spring

Students present their work and their ideas about their work to a faculty committee. This review affords graduating students the opportunity to analyze and summarize their work, and to engage a faculty committee in discussion about issues that face an artist preparing to enter a career in art. Although this is a non-credit course, it is required of all Art (BFA, BHA, BSA and BCSA) seniors.

60-401 Senior Studio

Fall: 10 units

Students initiate a comprehensive two-semester project in the first semester to be continued and completed in the second semester of their senior year (60-402). Each student pursues an ambitious and cohesive body of work with guidance by a team of School of Art faculty. Multimedia, multidisciplinary, and collaborative work is encouraged. Studio work is supplemented by group critiques, workshops on writing, professional presentation skills, career preparation, and technical instruction as needed. Attendance at all 5pm School of Art Lecture Series events is required for this class. Open to seniors in the School of Art, or by instructor permission.

60-402 Senior Studio

Spring: 10 units

Students continue a comprehensive two-semester capstone project. Each student pursues an ambitious and cohesive body of work with guidance by a team of School of Art faculty. Multimedia, multidisciplinary, and collaborative work is encouraged. Studio work is supplemented by group critiques, workshops on writing, professional presentation skills, career preparation, and technical instruction as needed. Attendance at all 5pm School of Art Lecture Series events is required for this class. Open to seniors in the School of Art, or by instructor permission.

60-403 Extended Studio

Fall and Spring: 10 units

Extended Studio allows students to work individually or collaboratively on a self-generated body of work or special project under the supervision of the professor. Group discussions, visiting artist presentations and critiques supplement individual meetings with faculty. Extended Studio can be used in conjunction with Senior Studio to develop more ambitious projects. Open to School of Art seniors.

60-406 Advanced ETB: Internet Resistance

Intermittent: 10 units

Through booms and crashes, colonizations and disruptions, IPOs and LOLZ, Internet has been a spectacular laboratory of social conflict. But what can artists do on the net beside tweaking their pitiful portfolios and sinking into social media malaise? What is the function of the network in the age of pervasive surveillance, fake news, and filter bubbles? How to Internet under the First Troll President of the United States? Internet Resistance is both a schizo-seminar about critical issues in cyberculture and a trans-media studio to develop terrible ideas for the networked society. <http://internetresistance.molleindustria.org/>

Prerequisites: 60-210 or 60-110

60-408 Advanced ETB: the Manipulated Moving Image

Intermittent: 10 units

The manipulated moving image has virtually unlimited potential to visually represent events, scenarios and forms that have little or no relation to our experience of the tangible, extant world. In this course you will use digital and analog tools and techniques and your imagination to create movies that do not represent the way the world is, but how you might want it to be and/or what you are afraid it might become (Utopian/Dystopian impulses, Eros and Thanatos). The manipulated moving image is a somewhat awkward but more inclusive word than "animation" for moving image forms that include: animation, motion graphics, compositing and visual effects in various combinations and permutations. In a way, digital tools have allowed moving image-makers to create works that have less to do with film and more to do with music and painting. Some of the techniques we will explore include: object animation, cutout animation, pixilation, collage, rotoscoping, motion tracking, and compositing. There will also be a focus on audio production and post-production with an emphasis on audio-visual relationships. The primary software tools students will be instructed in and use include Adobe After Effects, Photoshop, and Apple Logic Pro.

Prerequisite: 60-110

60-409 Advanced ETB: Video & Performance

Intermittent: 10 units

This studio course will concentrate primarily on the historical and ongoing relationship between video and performance. That said, this course will be flexible enough to allow students to create video, performance and video/performance projects. For structured projects, all students will be expected to participate in performance. Class time will be spent considering the history of performance and video/performance, viewings of primarily video/performance works to provide background and inspiration, presenting and critiquing student projects and studio time to work on projects. Technical instruction in video editing, compositing and effects, audio recording/editing and midi applications will be offered on an as needed basis.

Prerequisite: 60-110

60-410 Advanced ETB: Moving Image Magic: Visual Effects and Motion Graphics

Intermittent: 10 units

Fly like Harry Potter, fall into Alice's looking glass, create new worlds, or take a head-trip into the inner reaches of your subconscious. It's all possible in Moving Image Magic! This course serves as an introduction to the creation of extraordinary cinematic visions using a variety of analog and digital tools and techniques. These include: digital compositing, miniatures, motion tracking, rotoscoping, matte painting, puppets and motion graphics. Primary software tools are After Effects and Photoshop with forays into Motion, Resolve, Logic and Smoke. Prerequisites: Electronic Media Studio: Introduction to the Moving Image or instructor permission.

Prerequisite: 60-110

60-412 Interactive Art and Computational Design

Intermittent: 12 units

This is an advanced studio course in arts-engineering and new media practice, with a special emphasis for Spring 2016 on mapping and information visualization using geographic data. Topics surveyed in the course will be tailored to student interests, and may include: experimental interface design, locative and mobile media, data-driven activism, image processing and computer vision-based interactions, and other topics.

Through a small number of exploratory assignments and a public capstone project, students will bolster interdisciplinary problem-solving abilities and explore computation as a medium for curiosity-driven experimentation.

Enrolling students are expected to have demonstrable programming skills, without exception, beyond the level of an introductory class such as 15-112. Although the course will provide technical overviews of major visualization toolkits (including D3, Processing, and openFrameworks), assignments may be executed in the student's preferred programming environment. Graduate students should register for section 51-882, 60-712, or 62-726, which meets with the undergraduate sections 60-412 and 51-482.

Prerequisites: 15-112 or 60-112 or 15-110

60-414 Advanced ETB: Animation Art and Technology

Spring: 12 units

Animation Art and Technology is an interdisciplinary course cross-listed between Art and Computer Science. Faculty and teaching assistants from computer science and art teach the class as a team. It is a project-based course in which four to five interdisciplinary teams of students produce animations. Most of the animations have a substantive technical component and the students are challenged to consider innovation with content to be equal with the technical. The class includes basic tutorials for work in Maya leading toward more advanced applications and extensions of the software such as motion capture and algorithms for animating cloth, hair, particles, and grouping behaviors. The first class will meet in CFA room 303.

Prerequisite: 60-110

60-415 Advanced ETB: Animation

Fall: 10 units

Satire Through History, the Arts and Animation - Through lectures, class readings, screenings and student projects, this class will examine various theories of humor and satire through history, focusing on its use in art and animation. Theories of how humor functions both personally and culturally will be introduced and discussed in group critiques of the students' comedic or satiric animation creations.

Prerequisite: 60-110

60-416 Advanced ETB: Documentary Storytelling

Intermittent: 10 units

In this class students will develop projects which use a variety of narrative concepts to convey stories in new ways. We will begin with a core practice around video, audio, and expand into internet media, performance, physical media and installation. Emphasis will be placed on story structure and strategies for choosing a media most appropriate to the narrative as well as the desired audience. Works by Janet Cardiff, Errol Morris, Spalding Gray, Werner Herzog, Laurie Anderson, This American Life and others will be mined for inspiration. With permission of instructor. We will also examine and discuss a range of historical and contemporary strategies employed by art makers who have used forums from on-line and virtual spaces to physical and site specific venues to expand and explore the relationship between the art object and the audience.

Prerequisite: 60-110

60-417 Advanced ETB: Video

Intermittent: 10 units

This course explores the possibilities of experimental science fiction filmmaking to critique contemporary society and to imagine possible (or impossible) futures. Experimental Science Fiction combines screenings and discussions of experimental and independently produced science fiction films from all over the world, critical and literary readings and technical instruction in creative visual effects. Students will create their own short experimental science fiction films. Prerequisites: Electronic Media Studio: The Moving Image. If you have not taken 60-110 but have basic proficiency in Adobe Premiere and After Effects please contact Professor Suzie Silver suziesilver@cmu.edu.

Prerequisite: 60-110

60-419 Advanced ETB: Experimental Game Design

Intermittent: 10 units

Experimental game design: Playing Together - A hands-on game design course focused on innovative and expressive forms of gameplay. In this installment of Experimental Game Design the emphasis is placed on games as social interfaces: from local multiplayer to analog table-top games, from folk and street games to play experiences in alternative contexts (arcades, gallery/museum spaces, urban environments etc.). The class consists in one long session per week that allows for extended prototyping exercises (mini-jams), technical tutorials, as well as frontal lectures, and in-depth playtesting sessions. Projects are team-based, coding experience is recommended but not required.

60-421 Computing for Live Performance with Max/MSP/Jitter

Intermittent: 10 units

This hands-on and highly interdisciplinary studio course is an introduction to the use of Max/MSP/Jitter, a visual programming environment for controlling interactive music, audio, video, and many other electronic media. For more than 25 years this software has been used by artists, musicians, and stage designers to create their own custom programs for algorithmic compositions, interactive installations, live environments and real-time performances. The simple visual interface of Max/MSP/Jitter allows non-programmers to create their own software without having to learn or to write traditional "code". Instead, users connect together pieces from a vast library of functional objects that manipulate and control sound, video, and other effects (such as DMX lighting) in response to sensors like cameras, microphones, game controllers, MIDI devices, and custom electronics. Students will be exposed to the fundamentals of multimedia programming in Max, the basic building blocks of sound and video, and techniques for integrating data from external sources, such as the popular Arduino microcontroller. They will also gain the practical knowledge and problem-solving skills to develop and design their own interactive installations, sculptures, and instruments for performance-based art or experimentation. No previous programming experience is necessary. Prerequisites: familiarity with the Mac OS.

Prerequisites: 60-110 and 60-210

60-422 Advanced ETB: Experimental Animation

Spring: 12 units

[IDeATe course] This class will examine animation production from the student's perspective. Animations that explore both form and content will be developed and discussed. Topics will include; non-linear narrative, visual music, puppet and non-traditional materials, manipulation of motion and performance capture data and immersive environments.

Prerequisite: 60-110

60-427 Advanced CP/ETB: Special Topic

Intermittent: 10 units

Modding & Remixing: Interventions in Technology and Entertainment - In this class students will look at the products of the technology and entertainment industries as sites of intervention, using and manipulating existing cultural products to create videos, performances, interactive narrative-based works and experimental video games. Throughout the course we will look to the history of artists remixing, appropriating and hacking artifacts from popular culture to introduce commentary and criticism of those objects. The class will include workshops and visiting artists and will function as a continuation of the recent Miller Gallery exhibition: Hacking/Modding/Remixing As Feminist Protest. All students that have taken EMS I are welcome to join the class. Experience with game development or programming is NOT necessary to participate in this course. Prerequisite: 60-110

60-428 Advanced ETB: Art of Robotic Special Effects

Intermittent: 10 units

Inspired by the early "trick" films of George Melies this project-oriented course brings together robotics and film production technique to create innovative physical effects and infuse cinema with the wonder of live magic. Students will learn the basics of film production using animatronics, camera motion control, and live compositing, then apply them to create short films all the way from concept to post-production. The course emphasizes real-time physical effects to explore the immediacy and interactivity of improvisation and rehearsal. The course includes a brief overview on the history of special effects and robotics to set the work in context.

60-429 Advanced CP/ETB: Special Topic

Intermittent: 10 units

Digital Worlds: Making and Performing in Digital Contexts In this class students will look at digital spaces including social media, chatrooms, online galleries, phone applications, YouTube, 3D renderings, massively multi player online games, and more to produce works that respond to the specificity of these terrains. There is a rich history of site specificity and contextual practice in the physical world; this class will consider parallels in computer-based environments. In addition to theory and research components, students will develop a variety of technological skills in video production, webcasting, audio editing, gif animation, 3D modeling, and more in this course.

Prerequisite: 60-110

60-430 Advanced SIS: Open Sculpture

Intermittent: 10 units

Sculpture is perhaps the broadest field among the contemporary visual arts. Through its privileged relationship to the physical world and the viewer's body, sculpture is the glue that connects the intermedia practices of object, installation, interactive art and performance. In this class we build on skills and concepts learned in 3D media 1 and 2 to develop students' individual approach. Students define independent responses to topics proposed through discussion of contemporary sculptors. Emphasis is placed on individual development. Students are encouraged to explore interdisciplinary approaches.

60-431 Advanced SIS: Installation

Intermittent: 10 units

This course explores a broad range of sculptural issues concerning the practice of Installation Art. Studio focus on relatively large scale works which often involve an ensemble of objects or phenomena in a particular space. Both temporary and permanent works are addressed. Emphasis on research about "place" and the proposal process for a specific context. Various strategies, methods and materials investigated through projects, readings, presentations, discussions and field trips. Exercises and projects assigned initially, but students expected to establish their own projects later in the semester.

60-433 Advanced SIS: Clay Sculpture

Intermittent: 10 units

Clay is a primary building block of sculpture. This supple, responsive and versatile material is being incorporated into the work of many contemporary artists today. This class will ask students to create projects that explore the use of clay as a medium in the context of their own work. It is intended both for students who would like to specialize in clay sculpture, as well as students who work primarily in other mediums. Lectures will be presented on various approaches and techniques of clay artists, as well as other historic and contemporary artists. A notebook methodology will be employed for recording progress. Class critiques will stress group participation to broaden viewpoints and sharpen critical abilities. The majority of class time will be for studio projects. The use of mixed media is allowed. A materials fee is required.

60-435 SIS: Metals

Intermittent: 10 units

Studio focus on fabrication using light metalworking techniques including forming, joining, and finishing. Metalsmithing and jewelry techniques will be explored in the context of sculptural issues. Metal stretching, forging, brazing, texturing, small scale casting and coloring are also presented. Slides looking at small scale metalwork, as well contemporary sculpture using metal techniques will be presented periodically. Metals provided include copper, brass, and bronze sheet and wire. Materials fee will also cover silver solder and other expendables.

60-436 Advanced SIS/ETB: Digital Fabrication for the Arts

Intermittent: 10 units

This is a class about making physical objects for sculpture, installations, and other art practices using computers and digital fabrication machinery. The tools will be object modeling software packages, rapid prototyping technologies, and computer numeric controlled (CNC) machining technologies. The facility of such tools in the making of multiples, mechanisms for kinetic/mechatronic work, morphology generated by code, and objects that mirror the forms of contemporary mass-produced design will be explored. A smattering of techniques for modeling different types of shapes and functionalities will be covered. That the hand, mind, and eye of the artist remain their primary tools, even in this environment of machinic ubiquity, is a primary revelation of the class. The physical still evades the virtual's desire to simulate it, predict it, and form it.

60-437 Advanced CP/SIS: Environmental Sculpture

Intermittent: 10 units

Studio focus on sculpting with the environment. Includes object making, installations and site work with an emphasis on ecological materials, growing systems, environmental impact and related issues. Students required to explore and develop proposal-making skills in order to acquire permission for sites in which to implement projects. Both individual and collaborative projects are possible.

60-438 Advanced SIS: Intimate Objects

Intermittent: 10 units

The intimate object - exploring the issues of small scale sculpture. This class will deal with the creation of objects that require a one on one interaction with the viewer. Unlike much heroically scaled sculpture, there is a distinctly personal and intimate connection that these objects engender. The class will look at historical examples, as well as 20th century works starting with the dada and surrealists. Problems of small scale sculpture will include topics such as the miniature versus actual size, the nature of materials, the issues of craftsmanship, the problem of preciousness. This class is open to advanced sculpture students working in any media.

60-441 Advanced CP/SIS: Urban Intervention

Intermittent: 10 units

This course introduces students to the histories, repertoire, tools and methodologies for interventions into public space. Specifically, this course will focus on interventions that are motivated by the needs of a community of stakeholders, and the gathering, visualization, sonification, interpretation and narration of data can. During the first half of the course, students will be introduced to a number of hardware tools and software platforms for cartographic, demographic and environmental data. Students will be introduced to and complete exercises with several software platforms for data scraping, visualization and sonification, as well as tools and methodologies for employing large-scale outdoor video projection as a technique for sharing information with a wide range of audiences. This portion of the course culminates in a presentation by each student that lays out a plan for a final project, to be completed in the latter half of the course. Specifically, each student will identify a problem to address, identify the stakeholders in this issue, devise a strategy for employing urban intervention with media to address this issue. Students will be required to carefully assess the feasibility and scope of their proposed project so as to assure a tangible deliverable with positive impact. During the second half of the course students will iterate through two prototypes of their intervention plan, and finally actualize the intervention during the final two weeks of the course. The undergraduate (60441) and graduate (60741) sections of the course meet concurrently and follow the same syllabus and assignments. In addition to the coursework documented in the syllabus, Graduate level students are expected create a substantial annotated bibliography documenting their research throughout the course of the semester.

60-446 Advanced SIS: Expanded Theater Fusion Studio

Intermittent: 10 units

[IDeATe collaborative course] As the boundaries between theater, art, entertainment and everyday life continue to expand through engagement with new technologies, it is critical that emerging artists and technologists be provided with the tools, language, and vision to thrive in the new millennium. Expanded Theater will reanimate classical modes of performance with media, networks, robotics, locative applications, and mobile systems. Considering theater as an ancient technology of mass participation and social cohesion, this fusion studio explores how emerging technologies can expand upon the basic theatrical relationships in new and culturally relevant ways. Collaboration and integration of design, media and storytelling is critical to this approach. Experimentation with new forms can reanimate the basic values of theater; the essential nature of a live event, the possibility of visionary spectacle, and the creation of meaning in dialogue with an audience. Expanded Theater is an opportunity to explore avenues outside of traditional theatrical production modes and beyond each student's individual discipline. The curriculum combines resources from Carnegie Mellon's Schools of Art and Drama, Integrative Design, Arts, and Technology (IDeATe), the Emerging Media Masters (EM2), Computer Science, the Robotics Institute, and their collaborators across the university in a new configuration. Expanded Theater will explore domains ranging from site specific and networked-based performance and interventionist practices, to pervasive social media technologies and their influence on interpersonal communication. The goal is to investigate contemporary languages that allow authors, actors and technologists to collaborate in ways that push beyond our present understanding of theatrical production and reception. This course alternates between two modes of research and design.

60-450 Advanced DP3: Drawing

Intermittent: 10 units

Studio focus on drawing experiences designed to develop observational, compositional, technical, expressive, and conceptual skills. Emphasis on independent work, and on the integration of drawing with work in other media.

Prerequisites: 60-150 and 60-160

60-451 Advanced DP3: Concepts of Figuration

Intermittent: 10 units

This course encourages creative exploration of the human image beyond observational figure drawing. We will be thinking of the figure as a symbol to explore narrative, anthropological, cultural, sociopolitical, gender, and dream-life imaging. Through these lenses the figure becomes primary to the understanding of personal or group identity, place, sexuality and gender identification. Figure drawing is open to the use of traditional and extreme image making methods including observational and fictional representations or other conceptual premises relevant to the successful presentation of privately held concerns. Emphasis will be on experimentation with both material and image. The class will consist of studio time, critique, readings, and discussion.

60-452 Advanced DP3: Color

Intermittent: 10 units

In this advanced course, students will learn to employ a wide range of color theories and color systems through hands-on exercises and studies. Studies will be done primarily in paint, with some use of collage and digital media. These exercises will be aimed at mastering a variety of color approaches that will be applicable to each student's own artistic practice. Students will develop, based on their own interests, a cohesive body of work in which to practice and expand on the skills learned through the directed exercises. Studio work will be augmented by lectures, demonstrations, critiques, readings and critical discussion of writings about color.

Course Website: <http://artscool.cfa.cmu.edu/~merrell/colorclass/color.html>**60-453 Advanced DP3: Painting**

Fall and Spring: 10 units

In this course you will be encouraged to expand your skills and develop a personal vision, while maintaining a spirit of investigation into the developmental process, the magic, the illusion and the physical reality of painting. The professor will act as critic and advisor as students work independently developing self-generated ideas and setting personal goals. We will meet as a class for group critiques, discussions, presentations on the practical aspects of the profession, and slide lectures on contemporary artists.

Prerequisite: 60-250

60-458 Advanced DP3: Serigraphy

Intermittent: 10 units

Advanced PDP: Serigraphy. Studio focus on processes and artmaking issues related to water-based/acrylic serigraphy. Emphasis on individual conceptual/artistic development. Material fee required.

60-460 Advanced DP3: Paint/Print

Intermittent: 10 units

Paint/Print encourages creative exploration of the boundaries between print media and painting through material investigation, thereby eliminating any assumed hierarchy between the two modes of working. Painting and printmaking are open to the use of traditional and extreme image making methods including observational and fictional representations, abstraction, collage, installation, digital drawing/painting or other conceptual premises relevant to the successful presentation of privately held concerns in image-making. Emphasis will be on experimentation with both material and image. The class will consist of studio time, critique, readings, and discussion.

Prerequisites: 60-250 and 60-251

60-462 Advanced DP3: Rethinking Mixed Media & What's Flat

Intermittent: 10 units

This course focuses on your ability to generate ideas and execute a strong and significant body of work in 2D mixed media. As an advanced student you are expected to reach some conclusion about the direction of your work and want to produce and develop your work. Research and experimentation in medium and process is expected along with developing ideas and exploring content and expression. Periodic writing will be required to support your creative research. There is a long history of 2D artists mixing materials and generating more than meets the eye. Materials, process and content will be discussed with emphasis on mixing and integrating orthodox and unorthodox mediums as a way to develop image making that goes beyond the ordinary. Medium process will be discussed but instruction in learning a medium (techniques) will generally not be covered. A variety of critique formats will be maintained weekly along with periodic slide lectures and discussions on artists and critical articles. Where does 2-D end and 3-D begin and have you heard of the talking 2-D work or the 2-D performance, or the flat tube? This course is about engaging in the mixing/combining of 2-D work, including installation, site consideration and other potential mediums.

Prerequisites: 60-150 and 60-250

60-463 Advanced DP3: Print/Draw

Intermittent: 10 units

This course will focus on the development of technical and conceptual strategies in drawing AND/OR print media. With students working in either or both areas, the class the function as a studio workshop in which students set personal goals and strive to produce a significant body of work. Students will be expected to experiment and to create their own problems/limitations, while investigating a range of materials and considering the relationship between form and content. Individual and group critiques will help guide students; presentations on artists, readings, and field trips will contextualize the group's work.

60-464 Advanced DP3: Expanding the Graphic Novel

Intermittent: 10 units

In this course, students will critically and creatively engage the medium of comics to both learn how to better communicate their ideas through this form as well as explore its boundaries. We will investigate the historical roots of comics and of the graphic novel? as well as study the structure of a sequential narrative. We will research how various comic artists employ these tools (artists such as, Chris Ware, Alison Bechdel, Lynda Barry, Ivan Brunetti, Michael DeForge, Julia Wertz, Kevin Huizenga, Dash Shaw, Marjane Satrapi etc). Students will also be expected to think beyond the commonly accepted notions of a graphic novel and to question the relevancy of their work in this medium. Finally, students will produce a new body of work that will be compiled and published in a collective anthology.

60-468 Advanced DP3: Print Media - Out of Print

Intermittent: 10 units

This fast-paced Advanced Print Media class begins with collecting out-of-print ephemera as the source inspiration for creating new images using any technical process or conceptual strategy from the Print Media tool box. This is a high output, low stakes class that emphasizes Making and Doing as the key foundation for a generative creative practice. This class will include visits to used bookstores and library special collections for source images and hands-on workshops at local print studios and letterpress shops. Students will have access to Screenprint, relief, intaglio, lithography, scanners, large format digital printing on both paper and textile, xerox, risograph, laser/cnc aided print matrixes etc. Students will explore alternative distribution methods (portfolio exchanges, zines, artist books, gifs, Instagram, tumblr) of the graphic image to recirculate images and texts that were out-of-print.

Prerequisite: 60-251

60-471 Advanced DP3 Drawing: The Figure, Anatomy and Expression

Intermittent: 10 units

For thousands of years artists have seen the human body as an object of beauty, and as a powerful metaphor for documenting the passion and the paths of human experience. This course will focus on that complex and compelling subject. In class, students will work from the model, studying the figure as a means to heighten sensitivity, expand visual perception, and refine drawing skills. An introduction to the landmarks of anatomical bone and muscle structure will be included. Outside class, students will be encouraged to seek meaning in the humanity of the figure as a vessel for expression, be it personal, social, political, spiritual, narrative or emotional.

60-472 Advanced DP3: Mutable Landscape

Intermittent: 10 units

With camera in hand, students will explore, document and invent a sense of place in Pittsburgh. Informed by photographic history and landscape studies, students will develop their own portfolios of digital prints. As a CFA Interdisciplinary photography course, students will be encouraged to consider their photographs in the medium of their home department, and in some cases as a starting point for projects in other materials. No prerequisites.

60-475 Advanced DP3: Print Media

Intermittent: 10 units

This course offers an inclusive definition of print media that recognizes historical and contemporary tools, techniques and practice. Reproductive image making will be addressed within the context of traditional print media equipment, digital arts output and experimental methods. Essays and lectures on contemporary artists will aid student knowledge of current dialogue and strategies for addressing the printed impression. This course expands upon the theoretical and conceptual themes introduced in Print Media I with emphasis on student-conceived projects led by faculty advising. Prerequisite: 60-251

60-486 The Art and Science of Color

Intermittent: 10 units

This interdisciplinary course will consist of a combination of chemistry lecture & labs with studio art & art history. The focus of the course will be on the intersection of painting practice with chemistry, particularly in the study of pigments of mineral & inorganic origin. This is a project course open to majors in chemistry & art. The course & its projects are designed to expand the expertise of students in each discipline, while exposing them to the methods, demands, & aims of the other. Historically, the craft of painting was closely linked to the practice of pigment manufacture, with painters procuring their materials in raw form directly from the chemist/apothecary, & often performing themselves the final purification & grinding of the minerals into pigments. Color has been used by both artists & alchemists as a benchmark for tracking changes while creating new materials based on minerals found in nature. With the advent of mass-produced & marketed art materials in the nineteenth century, the distance between chemist & artist increased until the two worlds have little to do with one another. This class aims to reconnect the two disciplines for a study of their common ground. Students will learn about the origin of the color of minerals with primary focus on colors that originate from electronic transitions & will work collaboratively on hands-on laboratory research projects that involve the synthesis, characterization, & use of inorganic pigments. In the studio, they will make their own egg-tempera paints, & use them in painting projects designed to increase color skills as they learn about the history of pigment use. Students will collaboratively design & carry out final projects which combine research, experimentation & creative work. A series of researchers who work at the boundary between art & chemistry will give guest lectures, & the class will make field trips to local research labs & museums.

60-487 Advanced CP: The Amateur

Intermittent: 10 units

If a contemporary artist can truly do and be anything, how come so much art looks the same? More and more contemporary artists are pushing beyond the conventional media and methods of the art world by strategically operating as "professional" amateurs. The term amateur reflects a voluntary motivation to create as a result of personal passion for a particular activity, regardless of expertise or authority. For the artist, embracing the role of the amateur allows for the use of any profession, institution, or social activity as a possible material within their creative practice. This includes artists who "perform" as amateur preachers, psychologists, geneticists, politicians, and exotic dancers; artists who create amateur institutions like sanitariums, circuses, hair salons, talk shows, and planetariums; and artists who collaborate with professional hypnotists, ornithologists, stunt coordinators, ventriloquists, and diplomats in order to manifest their work. Students in this class will work on self-defined projects that utilize the role of the amateur as a critical method for expanding the breath and reach of their art practice into new forms and venues. With faculty mentorship, each student will be responsible for developing their projects through independent research, apprenticeships, and collaborations with experts in fields relevant to their work. Workshops, lectures, and in class critique of ongoing work will look at contemporary trends related to amateurism in art practice, theory, and the world at large. This class is not about being an amateur artist, but about being a serious artist who uses amateurism as a tool. Thus the class is only open to students with ???

60-499 Studio Independent Study

Fall and Spring

A tutorial studio in which an Art student works individually on a self-generated project under the supervision of a School of Art faculty member. Prior to enrolling in Independent Study, the student must complete an "Independent Study Proposal" form (available in the bins on the 3rd floor of CFA) which is signed by the faculty member and the Assistant Head of the School of Art. Prerequisite: Art Junior/Senior status and by instructor permission.

60-590 Internship

Fall and Spring

Art Internships are open to all BFA, BHA, BSA and BCSA Art students. Internships may take place with appropriate individuals or organizations within or outside of Carnegie Mellon University. The requirements for an internship are in the School of Art Handbook (available at the School of Art website). Prior to being enrolled for an internship, students must complete an Internship Proposal Form, which defines the goals of the internship. This form must be signed by their site supervisor and approved by the Assistant Head of the School of Art. Forms are available in the bins on the 3rd floor of CFA. Junior and Senior Art majors only.