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
Description TBA

60-106 Critical Theory in Art II
Spring: 9 units
Description TBA.

60-109 Adventures in Arts Time
Spring: 9 units
An introduction to the essential elements, structures and dynamics of "Arts Histories" from the earliest Prehistoric periods to the end of the Ancient World. It will take an anthropological approach, focusing on humans as extraordinary culture-makers, whose definition is inseparably tied to making Art and Symbolic-Objects. The approaches to study and research will utilize multi-media and explore the History of the Arts in multidisciplinary ways - across Time and Space. It will start with a somewhat linear approach towards cultural artifacts and remains, surveying them from the earliest periods down toward our own Contemporary. It will also take a multi-cultural perspective relating and comparing cultures across different parts of our world. The methodologies will include investigating "Time-Capsules" which will focus on interrelated groupings of related cultural materials organized as - People, Places, Objects, Events and Ideas. The intention is to create a meaningful matrix which brings together the most significant examples of Art, Architecture, Design, Music and Drama. The setting of the Carnegie Museums will be used as a creative-context for interacting with potent symbolic examples of Human-creativity in ways that transcend what is normally experienced in printed words and pictures. There will also be the creation and development of an "I-Story" by the participants. Each student's I-story will be a form of a personal journal (but including multimedia) relating their own individual historical research experiences - to the larger concerns. Art majors must complete one Mini-1 course and one Mini-2 course to satisfy the 3D requirement. Students are required to select two of the following four sections: Sculptural Fabrication (Wood & Welding); Clay Sculpture; Small Metals; and Hey Robot, Let's Make Something. 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 presented 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.
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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 Studios: The Self and The Human Being I 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 Modern Visual Culture 1789-1960
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 Contemporary Visual Culture 1960 - Present
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.

60-215 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 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
This course extends the traditional darkroom process of silver printing from Black and White Photography I, with an emphasis on aesthetic development, personal artistic growth, and formal image evaluation. Skills covered include medium and large format cameras, advanced darkroom printing techniques, exhibition presentation, and film scanning for inkjet output. Studio work involves both group critique and individual direction from the instructor. Students should expect to produce a finely-printed body of work by the end of the semester. Prerequisites: 62141 or 60141 or 51265 or consent of instructor. Prerequisites: 51-265 or 62-141 or 60-141

60-242 Digital Photography II
Intermittent: 10 units
Description TBA

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
The language of photography explores the emotional and visual process of collaboration between subject and photographer that creates a photograph. We’ll use cameras of all formats and levels of sophistication to create portraits in the studio and on location. We’ll find and exploit available light and create artificial light to complete our vision, and we’ll explore a wide range of darkroom strategies to support and add richness to our final print. Through film and video we’ll meet some of the masters of this field like Arbus, Newton, Avedon and Soth, and we’ll take advantage of any opportunities to visit exhibitions and photographers studios. Lab fee required.

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: 60-151 or 60-160

60-251 2D Media Studio: Print Media
Fall and Spring: 10 units
An introduction to print media with emphasis on reproductive image making in the context of historical and contemporary practice. Students will be introduced to print processes such as intaglio, stencil, relief, linocut, lithography, serigraphy, and digital applications. Informed by readings, presentations on artists, and visits to museums, students will develop a body of work informed by and extending the traditions of print media. Open to sophomores in the School of Art, or by instructor permission. Prerequisite: 60-160

60-257 Introduction to Computing for Creative Practices
Fall: 10 units
This course is an introduction to Java programming for designers, architects, artists and other visual thinkers, using the popular “Processing” Java toolkit for interactive graphics. Intended for students with little or no prior programming experience, the course uses interaction and visualization as a gateway for learning the traditional programming constructs and the fundamental algorithms typically found in a first course in programming. Students will become familiar with essential programming concepts (types, variables, control, user input, arrays, files, and objects) through the development of interactive games, information visualizations, and computationally-generated forms.

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.

60-340 The Ballet Russe (The Russian Ballet) and its Artists
Intermittent: 9 units
The leading artistic position of the French Avant-Garde in the 1910’s and 1920’s was partly predicated on the assembly, meeting, collaboration and cross-influence of artists from all over Europe. The visual artists, musicians and performers brought with them specific aspects of their native heritage, therefore contributing to the enrichment of the general cultural scene. Paris with its cultural focal point the Ballets Russe became a melting pot of creativity.

60-351 Art & Religion
Intermittent: 9 units
The Art and Religion course-seminar will explore several major artistic manifestations prompted by religious beliefs during the history of art. Emphasis will be on the arts, although general historical eschatological and philosophical explanations will be assessed as well. Major religions will be brought to discussion in one or several of their artistic manifestations. The course-seminar will be based on discussions facilitated lectures given by the professor, in addition to student research presentations.

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 roiling 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.

60-356 Curators, Artists, Audiences & International Markets
Intermittent: 9 units
How do art and artists get selected for museum shows, collections, and biennials? This course offers students an in-depth view into the multifaceted elements of the markets that influence curators, artists, and audiences. The Global Art Market is a complex structure comprised of many parts and it has been evolving for centuries. The class will provide students with a solid foundation about the history of the art market in order to gain a perspective about the rise and power of the art market today. We will examine who are the current players and operational mechanisms. We will investigate the following: Who are the key players? Cities? Collectors? Professional training? And, investigate institutions and organizations that influence the acceptance of certain artists, the rise of certain ideologies and the contraction of others. Visits to several institutions, discussions with collectors and auction sites will also occur. An analysis of the 56th Venice Biennale as a point of reference will occur in order to demonstrate why this international show has a particular slant and how the director’s point of view influences the selection of artists and themes. Focus will be on the expansion of emerging markets and the influence the art world on line has on artists, curators and audiences.

60-357 Picasso & 20th Century Art
Intermittent: 9 units
The greatest artist of the twentieth century, Picasso, invented or participated in most of the major styles of modern art. His artistic genius and visual inventiveness will be explored from 1894 (age 13) to his death in 1973 (age 92), against the background of eight decades of modern art. The focus of the investigation will not be limited to psychological and iconographic factors, but will be discussed in the historical and artistic context of his time.

60-358 Art and Biology
Intermittent: 9 units
A studio-laboratory art-making course designed to explore interactions between art and biology. It is an opportunity for students interested in interdisciplinary concepts to work both in a studio art environment and a biological laboratory. Students have the opportunity to experiment creatively with scientific media such as electron and video-probe microscopy.

60-360 Feminism - Art - Theory
Intermittent: 9 units
What happened when the women’s movement and the art world encountered each other? What is the relationship between the theory of art and the theory of feminism? or between the practice of art and the practice of feminism? This course will take place on campus, and at the Mattress Factory, where I am curating an exhibition, “Feminist and?”, which will open September 7th. The course will cover themes such as the gendered nature of culture; the practices of history and criticism; the interrelation between feminist activism and art practice; notions of the aesthetic and if there are feminine or feminist aesthetics and representational forms; body, sexuality and representation; the representation of gendered national and racial identities. It will do this through looking at artworks, and through close readings of texts. Some of the material will engage with sensitive issues and challenging images, particularly around sexuality, and students taking the course must be prepared for and accepting of this. At the same time, full debate will be encouraged. The course is open to all students; preference will be given to MFA, senior and junior students.
60-362 Art Writer
Intersem: 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 Weiner, 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 and critique. Members will workshop their writing: revise, rethink, perform, and publish.

60-366 Culture in the Public Realm
Intersem: 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 effects 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 we have 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 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.

60-368 Likeness: Portrayal After Warhol
Intersem: 9 units
We live in a world in which science and technology are among the most powerful forces shaping our culture—a modernist transformation has reshaped our perceptions of identity and likeness are in flux. In this seminar, we will examine the impact of science and technology on identity and likeness as we undergo an exploration of the evolution of human portrayal globally from the time of Andy Warhol to the current era. In order to comprehend the present we will briefly look at earlier decades. In this era of technological advancement and social transformations the presentation of human likeness has undergone major change. Thanks to photography and cyber technology perhaps even more so than the Portraits by Roy Lichtenstein or Warhol we will reflect on why we have 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 examine 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 we have 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 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
Intersem: 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” (a yeung nian wa) (2000)? What does David Cronenberg’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 innovating and commenting on 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 ten key films—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.

60-373 Aesthetics from a Global Viewpoint
Intersem: 9 units
The arts and their making is a behavior that differentiates our species. Artistic/aesthetic differentiation is a global phenomenon occurring since the dawn of our species. This seminar will explore the articulated aesthetic philosophy of large historic cultures: Western traditions from Plato to Heidegger, including Islam as integral to the Abrahamic traditions along with Hindu, Buddhist, and Shinto aesthetics. These broader traditions may be examined along with additional examples from small, isolated or ancient cultures, such as the Hopi or the Aborigines of Australia. Across cultures, we will explore the aesthetics of cardinal cultural "objects" (architecture, painting, sculpture, performance/ritual, dance, film, and other media) through readings and discussions. Each student's individual definition of the nature of the arts will be constantly measured with and against the ideas of other cultures, all developing an interactive and integrative dialogue. Other issues include: the study and understandings of the roots of the iconoclastic traditions and their constant struggle and interaction between the meanings of the icon and the image; the notion of cultural "otherness"; and how aesthetic problems manifest themselves in our world in immediate and violent ways; and the evolution of the drive for the preservation of cultural memory in light of recent destructive events in Afghanistan and Iraq.

60-375 Art History/Theory: Contemporary Likeness, Identity and Culture
Intersem: 9 units
The issue of identity in the visual arts emerged in a new light with the shift away from a modernist paradigm where identity and likeness were seen as primary indicators of national identity, social status, religious belief, or a signifier of historical events, no longer dominate. Shifting cultural values, rise of celebrity culture, global expansion and technology have played an influential role in reshaping our concept of human likeness and identity; each has challenged the hierarchical pretexts regarding the portrait. Nowdays images of the self and others, prompt viewers to consider a wide array of psychological, spiritual, and political information beyond visual manifestation. A variety of themes will be explored and a range of artists, as well as non-artists. In class discussions we consider how new technologies have affected the evolution of the portrayal of the humanity.

60-370 An Aesthetics of Hip Hop Seminar
Intersem: 9 units
This seminar course will examine artworks informed by or in dialogue with hip hop culture. Particularly attention will be paid to visual artists who came of age during the post civil rights, global economics era time period between 1965 and 1984, birth years labeled the hip hop generation. We will draw connections between on-going ideas addressed in the art world: aesthetics, identity, culture; and the content of hip hop's visual, technological and performative expressions. There will be weekly lectures, film screenings and assigned readings. Performance will be evaluated based on overall participation in the following: class discussion, homework assignments, mid-term essay and final research paper.

60-376 Large Format Photography: The Antiquarian Avant-Garde
Intersem: 9 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: silver printing processes, cyanotype, paper negative, photography, and contemporary tin-types. Prerequisites: 60-141/62-141 equivalent or consent of instructor. Prerequisites: 60-141 and 62-141

Carnegie Mellon University
60-377 Picasso and 20th Century Art
Intermittent: 9 units
The greatest artist of the twentieth century, Picasso, invented or participated in most of the major styles of modern art. His artistic genius and visual inventiveness will be explored from 1894 (age 13) to his death in 1973 (age 92), against the background of eight decades of modern art. The focus of the investigation will not be limited to psychological and iconographic factors, but will be discussed in the historical and artistic context of his time.

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: 51-265 or 62-141 or 60-141

60-381 Museums and other Exhibition Spaces
All Semesters: 9 units
This class provides students with an introduction to the history and function of museum/art spaces and an understanding to the effect of museum exhibitions on our notion of history, arts, culture and society. This course is geared to artists as they prepare to go into the post-graduation enigmatic art world and for students desiring to pursue a career in curating. Focus is on the actual and ideal museum and art galleries, alternative spaces, biennials, art collectives, virtual options as well as a variety of venues to showcase art and culture. It will analyze not so visible skirmishes, hidden economics, and the complex ways artists and curators interact with institutional power. We will concentrate on showcases for art in the Pittsburgh region and visits to museums and exhibitions will be an integral part of this course. Topics to be covered through lectures, discussions and readings include: national galleries, city museums, art centers, artists spaces, museums, as treasures of culture and of cultures, museum architecture, the idea of the canon in art, political correctness in exhibitions, collections and collecting, ethical issues, acquisitions and de-accessions, design and installation, conservation, sculpture gardens, private houses as museums, donor memorials, museum operations, museum shops, and the role of museums in contemporary society. We will explore controversies relating to museum acquisitions and to the looting of cultural goods.

60-392 Inner Geographies
Intermittent: 9 units
Inner Geographies: On Discovering the Inward Landscapes and Journeys of the Mind and Body This course will discover and explore the inward subconscious topologies of perception, thought (logics), memory, imagination, intuition, the hypnogogic (between dream and waking), dreaming, telepathy, meditation and trance in relation to artistic and other forms of creativity (writing, science, and technologies). The general purpose of the course is to familiarize students with their own unique individual and specific patterns of creativity and thereby reveal new artistic and other unanticipated disciplinary potentials projects. Through simple exercises these aspects of the creative mind and body will be revealed and explored, noted, organized and mapped toward simple formal objects and outcomes, and at the same time, toward a chosen artistic projects or research. All students will evolve a final project. Our texts will include: Anton Ehrenweig, “The Hidden Order of Art”, Edward Hall, “The Hidden Dimension”, Gaston Bachelard, “The Psychoanalysis of Fire”, Carl Gustav Jung, “The Red Book”, Martin Heidegger, “Being and Time”, and other excerpted texts. Students will be expected to learn, articulate and use new creative mental tools and methodologies in the creation of their projects.

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. Social movements and technological innovation will be analyzed and discussed in relation to the effects they had on animators and their work. This class will read related texts and view US and international examples 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 BCASA) 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.

60-405 Advanced ETB: Interaction and Computation for Creative Practice 
Fall: 10 units 
TBA

60-406 Advanced ETB: Internet Resistance 
Intermittent: 10 units 
Through booms and crashes, colonization and disruptions, IPBs 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 transmedia studio to develop terrible ideas for the networked society. http://internetresistance.moleindustria.org/ 
Prerequisites: 60-110 or 60-210 

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 primary 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: After Effects and Photoshop for compositing, 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: 60-112 or 15-110 or 15-112

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 CPA room 303. 
Prerequisite: 60-110

60-415 Advanced ETB: 3D Animation 
Fall: 10 units 
This studio will introduce students to a variety of 3-D computer animation techniques. The class will look at and discuss examples of historic and contemporary animation. The students will explore animation through a variety of short experiments, and develop individual projects that use animation as a means of self expression. 
Prerequisite: 60-110

Course Website: http://graphics.cscmu.edu/courses/AA/INDEX.htm

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 examined for inspiration. Various tools and techniques are introduced, 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 CPA room 303. 
Prerequisite: 60-110

60-417 Advanced ETB: Video 
Intermittent: 10 units 
This course offers an in depth exploration of video as a tool for creative expression. Topics for investigation and discussion will include: histories of experimental video, contemporary trends in the field, technological developments, performativity, perception and manipulation of time, and theories of representation. Additionally this course will provide instruction in advanced production and post-production techniques, including lighting, editing, compositing, 2D animation, graphics and sound design.

60-419 Advanced ETB: Experimental Game Design 
Intermittent: 10 units 
Experimental Game Studio: Post gaming A hands-on course focused on innovative and expressive forms of play. This semester the emphasis is put on fringe works that expand the notion of games: VR, game art, performative play, digital toys, notgames, and other playthings. The class involves a series of micro game jams to familiarize with different aspects of the game engine Unity, and two main projects. Some programming experience is required (i.e. any of these courses: 60210, 60212, 15104, 15110, 15112). 
Prerequisites: 60-212 or 15-104 or 60-210 or 15-110 or 15-112
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, 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 lamps, 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: 60-210 and 60-110

60-422 Advanced ETB: Experimental Animation
Spring: 12 units
[DeaTe 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

60-428 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.

60-430 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 intermediary 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 record keeping. This course 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 course 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-aided-design (CAD) and computer-aided-manufacturing (CAM) 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 skills 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.
Course Website: http://teach.alimomeni.net

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 issue of craftsmanship, the problem of preciousness. This class is open to advanced sculpture students working in any media.

60-439 Advanced SIS/CP: Hybrid Instrument Building
Intermittent: 10 units
The course covers theories, practices, aesthetics and communities surrounding new musical interface design. The course focuses on hybrid instruments that consist of analog, digital, acoustic and synthesized elements. The course will explore hybridity by both 1) delving into computer-aided-design (CAD) and computer-aided-manufacturing (CAM) for prototyping acoustic sculptural objects, and 2) prototyping interactions through physical computing (sensing, haptics) and real-time software (mapping, audio synthesis). The first half of the semester engages students in a series of rapid prototyping projects where students make several simple hybrid musical instruments, each one exploring a form of gestural interaction interaction thru sensing, a mapping between gesture data and sound, and electroacoustic sound synthesis scheme. The course requires familiarity with basic digital fabrication workflows (including a design environment like Rhino or Solidworks as well as fabrication with laser cutters, CNC-routers and 3d-printers) as well as basic physical-computing and real-time programming (e.g. Arduino, Max, Puredata). If you like to jam, code and make things, this is the course for you.
Course Website: http://teach.alimomeni.net
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
[IdaTe collaborative course] As the boundaries between theatre, 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 currently relevant ways. Collaboration among artists 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 (IdaTe), 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 network-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

60-453 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 art.
Prerequisite: 60-250

60-458 Advanced DP3: Serigraphy
Intermittent: 10 units

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: 60-251 and 60-250

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.

60-467 Advanced DP3: Printinstallation
Intermittent: 10 units
This course offers an expansive approach to print media. It will examine the role of print media in and as installation, addressing the medium in context and as a multiple. Print media, here, is defined as work that may involve traditional practices such as, intaglio, lithography, silkscreen, ABS; contemporary distribution practices such as, Fridays, file sharing and digital imaging. Experimental methods of print production are welcome. Students will generate work to be exhibited, performed or situated for review during individual meetings or group critiques. There will be readings and presentations on contemporary artists, and School of Art Lecture discussions. This course will emphasize student-conceived and executed projects guided by faculty feedback.
Prerequisite: 60-251
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 re circulate images and texts that were out-of-print.

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 pathos 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. Infirmed 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 basic technical and conceptual themes introduced in Print Media I with emphasis on student-generated 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 interconnecting the sciences of chemistry and painting, as well as the history and evolution of painting media from its traditional sources to contemporary innovations. The course will introduce students to the scientific principles and methods of pigment research, as well as to the history and technical evolution of painting materials. It will also provide hands-on experience with the practical aspects of material and process. Prerequisite: 60-251

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 circuses, carnivals, 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 breadth 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, approaches, and collaborations with experts in fields relevant to their work. Workshops, lectures, and in class critiques will aid student knowledge of current and future 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 ???

60-492 Inner Geographies
Intermittent: 10 units
Inner Geographies: On Discovering the Inward Landscapes and Journeys of the Mind and Body This course will discover and explore the inward subconscious topologies of perception, thought (logics), memory, imagination, intuition, the hypnagogic (betweendream and waking), dreaming, telepathy, meditation and trance in relation to artistic and other forms of creativity (writing, science, and technologies). The general purpose of the course is to familiarize students with their own unique individual and specific patterns of creativity and thereby reveal new artistic and other unanticipated disciplinary potentials projects. Through simple exercises these aspects of the creative mind and body will be revealed and explored, noted, organized and mapped toward simple formal objects and outcomes, and at the same time, toward a chosen artistic projects or research. All students will evolve a final project. Our texts will include: Anton Ehrensweig, “The Hidden Order of Art”, Edward Hall, “The Hidden Dimension”, Gaston Bachelard, “The Psychoanalysis of Fire”, Carl Gustuv Jung, “The Red Book”, Matin Heidegger, “Being and Time”, and other excerpted texts. Students will be expected to learn, articulate and use new creative mental tools and methodologies in the creation of their projects.

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 iis 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.

60-540 The Artist as Entrepreneur
Fall: 3 units
This course is designed for senior (BFA, BHA, BSA and BCSA) and graduate Art students who wish to continue making, showing, and selling work after completing their studies. The focus of this course is on helping students develop the skills and knowledge necessary to establish themselves as working professional artists. Topics include: marketing and promotions, galleries and other exhibition opportunities, pricing work, contracts, taxes and related matters, dealers, grants and other fundraising, other income sources, finding health insurance, and finding and connecting with a community of artists. Students will create professional materials including a resume, business card, promotional post card and mailing list - and will be graded on these materials. There will also be required readings, class speakers and graded journals in response to these activities.

60-590 Internship
Fall and Spring
Art Internships are open to all BFA, BHA, BSA and BCSA Art students. Internships may take place within appropriate individual or with appropriate institutions 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 iis on the 3rd floor of CFA. Junior and Senior Art majors only.
60-756 Curators, Artists, Audiences & International Markets
Intermittent: 9 units
How does art and artists get selected for museum shows, collections, and biennials? This course offers students an in-depth view into the multifaceted elements of the markets that influence curators, artists, and audiences. The Global Art Market is a complex structure comprised of many parts and has been evolving for centuries. The class will provide students with a solid foundation about the history of the art market in order to gain a perspective about the rise and power of the art market today. We will examine who are the current players and operational mechanisms. We will investigate the following: Who are the key players?, Cities?, Collectors?, Professional training? And, investigate Institutions and organizations that influence the acceptance of certain artists, the rise of certain ideologies and the contraction of others. Visits to several institutions, discussions with collectors and auction sites will also occur. An analysis of the 56th Venice Biennale as a point of reference will occur in order to demonstrate why this international show has a particular slant and how the director’s point of view influences the selection of artists and themes. Focus will be on the expansion of emerging markets and the influence the art world on line has on artists, curators and audiences.