

School of Art Courses

About Course Numbers:

Each Carnegie Mellon course number begins with a two-digit prefix that designates the department offering the course (i.e., 76-xxx courses are offered by the Department of English). 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. Depending on the department, xx-6xx courses may be either undergraduate senior-level or graduate-level, and xx-7xx courses and higher are graduate-level. 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 Foundations: Risk, Agency, Failure

Spring: 10 units

Foundations: Risk, Agency, Failure is a transdisciplinary research-based studio course introducing you to the many ways that artists challenge conventions, experiment, and take risks through their artwork. The class will have theory-driven prompts with no specific medium requirements, and encourage you to explore the wide range of approaches to making that constitute artistic research. You will explore foundational questions like: What can art uniquely do in the world? How can you playfully work with subjects and materials that are foreign and unfamiliar? How do you define success as an artist? How do you embrace failure as a productive part of the artistic process? How do you become comfortable breaking and remaking rules in art? The class will set up a structure for you to explore productive failure, encouraging you to take risks in a supportive environment and ultimately help you explore their own agency as cultural producers in the world.

60-104 Foundations: Art First-Year Seminar

Fall: 6 units

Foundations: First-Year Seminar is a critical aspect of beginning your experience as a School of Art Student. This course introduces you to the school's many facilities, equipment, opportunities, staff, and faculty that will be essential resources for you throughout your four years at CMU School of Art. You will build community with your entire first year cohort, both BFA and BXA students, as you share 24 hour access to the Foundations Studio, a multi-use shared studio space that will support your studio coursework during your first year. Through lectures and panel discussions, you will explore various methods of artistic research and forms of making that support today's creative citizens. Through hands-on demonstrations, you will learn technical skills and gain access to equipment that will prepare you for academic and artistic success at CMU and beyond.

60-105 Cultural History of the Visual Arts

Spring: 9 units

Have you ever felt that you liked an artwork but couldn't explain why? Do you have questions about art that you were always afraid to ask? This course is conceived to give students the tools to feel at home when visiting a museum and talk about art in social, business and academic settings. It is organized over two semesters, but students can take only one of the two courses. Cultural History of the Visual Arts I (in the fall) covers the period from the 1500s to the 1800s and features masterpieces and lesser known works in Western and Non-Western art, organized chronologically and by theme. Some of the topics we will study include the controversy surrounding Leonardo's and Michelangelo's works, the role of censorship in the arts, the development of perspective experiments and visual theories from Antiquity onward, the concept of landscape and the status of the artist in the Ming dynasty, the impact of colonialism and post-colonial identity in South American Art, the rediscovery of Pompeii and Herculaneum and the Egyptian craze in the 1800s, the world of Opera and ballet, and the Impressionists' ideas of what an artwork should be. The course also includes museum visits that will be organized taking in consideration the students' schedule. No prerequisite required and open to students from all disciplines.

60-106 Cultural History of the Visual Arts - the Modern Period

Spring: 9 units

Have you ever felt that you liked an artwork but couldn't explain why? Do you have questions about art that you were always afraid to ask? This course is conceived to give students the tools to feel at home when visiting a museum and to talk about art in social, business and academic settings. It is organized over two semesters, but students can take only one of the two courses, or both, in any order they prefer. Cultural History of the Visual Arts -The Modern Period (offered in the spring) covers the period from the 1800s to the 2000s and features masterpieces and lesser-known works that define our idea of what art is and what role it has in society. Some of the topics we will study include the invention of a "modern" ways of seeing in Japanese art; the impact of science, film and photography on the Impressionists; the myth of the artist as a savage, a fool, and a prophet; the creation of ideal homes for common (and uncommon) people; the meaning of the avant-garde; and the many ways in which artists and politicians experiment with art and architecture in order to control our minds and emotions. The course also includes museum visits that will be organized in relation to the students' schedules. No prerequisite required and open to students from all disciplines.

60-107 Foundations: Critical Studies

All Semesters: 9 units

Foundations: Critical Studies is a seminar course that expands your historical knowledge concerning contemporary art and human experience in society. Through critical reading and writing, you will learn how the role of artistic research contextualizes the conceptual creativity of your studio practice. This course involves close reading and discussions of a wide range of texts, from foundational theory to short stories, nonfiction, poetry, exhibition reviews, artist interviews, curatorial essays, and excerpts from scholarly monographs. Today's visual artist will find that writing is a key to future professional opportunities and that research, writing, and theory are integral parts of artmaking. This course integrates analytical reading and research-based writing into your creative process.

60-110 Foundations: Time-Based Media

Spring: 10 units

Foundations: Time Based Media introduces you to audio and video production software, equipment and techniques into your interdisciplinary studies in art. Projects explore the making and critiquing of moving-image and audio across a variety of contexts, and takes an active approach in learning how to produce your own new media work using both standard and experimental production techniques. You will build comprehension of related histories and theories; explore the meanings and consequences of ubiquitous broadcast and social media; and learn how to interrogate and wield media paradigms to challenge their influences in our lives.

60-120 Foundations: Digital Media

Spring: 10 units

Foundations: Digital Media is a practical introduction to expanded modes of creative practice made possible by the computer. In this studio course, you will develop the skills and confidence necessary to produce interactive, generative, and immersive artworks; discuss your work in relation to current and historic praxes of electronic art; and engage new technologies critically. Topics will include no-code and low-code approaches to: internet art, immersive world-building, and environmental storytelling; generative art and experimentation with learning machines; creative interventions and performance in social platforms; and the development of branching narratives and games.

60-125 IDEATe: Introduction to 3D Animation Pipeline

Fall and Spring: 12 units

This class will explore computer animation as it pertains to a professional animation production pipeline. The course is designed to give students exposure to key job descriptions that align to the animation industry. Topics covered include: character design, world building, storyboarding, digital sculpture, look development, rigging, layout, animation, cinematography, lighting, and rendering. These topics are taught in 2-4 week sprints that allow a student to learn the fundamentals of each craft. In a mixture of class lectures, critiques, and training workshops, students will become acquainted with the necessary skills needed to create their own characters and animations. By completion of the course, students will be familiar with industry-standard best practices and ready to take advanced courses related to animation, vfx, and video game related pipelines. This course specifically offers insight on how the craft of animation is always evolving at top studios such as Walt Disney Animation Studios, Pixar, and Industrial Light and Magic.

Course Website: <http://cmuanimation.weebly.com/>

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

60-128 IDEATe: Real-Time Animation

Fall: 10 units

An introductory course that explores improvisational strategies for making animation within real-time computer graphics frameworks. Advancements in motion capture technologies, real-time 3D computer graphics engines, and visual programming tools for AV synthesis provide open frameworks for the exploration of animation in spatial and interactive contexts. Studio work will explore real-time animation in a variety of contexts, including screen-based interaction, site-specific installation, and spatial immersion. Conceptual frameworks drawn from the histories of video art, animation, and immersive media design will inform collaborative group work and class discussion. Students without the prerequisite may register by instructor permission.

60-131 Foundations: Sculpture

Fall: 10 units

Foundations: Sculpture I is an introductory studio course in concepts, techniques, and tools for the fabrication of three dimensional physical works. The studio course introduces both digital and physical fabrication methods to translate ideas and materials into 3D forms. We will cover measuring, drawing, planning, pattern making, and construction techniques for cardboard, fabric, recycled materials, and a variety of mixed media; as well as the use of additive materials like paper clay. Through technical demonstrations, assignments, and hands-on explorations, students will learn how to make use of equipment in our sculpture labs such as laser cutters, sewing machines, and a variety of hand tools. Concepts explored as a group include physical and sensorial properties such as scale, weight, and materiality; as well as deconstruction / disassembly, reconstruction / reassembly, transformation, translation, function, dysfunction, and utility. Our experiments will prompt us to consider relationships between objects, bodies, spaces, and society; as well as between technology, craft, form, and language; ultimately exploring how to use the making of 3D objects as both a communicative tool and a practical tool for life. No prior knowledge or experience in the field is required to take this course. No prior knowledge or experience in the field is required to take this course.

60-135 Foundations: Sculpture II

Spring: 10 units

Foundations: Sculpture II is an introductory studio course in concepts, techniques, and tools for the fabrication of three dimensional sculptural works in wood and metal. This studio course introduces physical fabrication methods to translate ideas and materials into 3D forms. We will cover measuring, drawing, planning, subtractive and additive processes, joinery techniques for wood and metal, and a variety of materials in combination with these construction techniques. Through technical demonstrations, assignments, and safe hands-on explorations, students will learn how to use equipment located in our woodshop and metal shop, including major saws and sanders, hand tools, metal saws, and MIG welders. This class will explore concepts and histories related to functional object-making and utility; as well as sculpture in relation to space and site. Through presentations, readings, and class dialogue, students will be introduced to contemporary artists working across 3D physical media and installation, with special attention to the relationship between idea and materiality. Our experiments will prompt us to consider relationships between objects as architectures, bodies, spaces, and society; as well as between technology, craft, and language; ultimately exploring how to use the making of 3D forms as a communicative tool.

60-136 Ceramics for Non-Majors

Intermittent: 10 units

An introduction to three-dimensional form in clay, with access to our ceramics facility and kiln firings. Skills covered include hand building, sketching and modeling for larger fireable clay forms, throwing on the wheel, and basic glazing techniques. Discussions will include contemporary artists working in ceramics, as well as historical examples, and various approaches and techniques for working in clay.

60-137 Physical Computing for Non-Majors

Intermittent: 10 units

TBA

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 and #8212; 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. Use your own 35 mm camera, or borrow one from us for the semester. Students are responsible for the cost of photo paper and film, and a lab fee is charged for the course.

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 Foundations: Drawing

Fall: 10 units

Foundations: Drawing is a vital foundation for your interdisciplinary studies in art. This course will concentrate on the traditional elements of drawing and design: structure, line, shape, texture, motif, gesture, value and composition. You will be introduced to figure drawing, portraiture, perspective, and media experimentation. By the end of the semester, you will understand the importance of drawing as a visual language as well as a means of thinking. You will be expected to expand your mindset of what constitutes drawing and apply skills, knowledge and ideas from other studio classes and academic studies to your work.

60-170 Foundations: Paint/Print

Spring: 10 units

Foundations: Paint/Print introduces you to color, paint, printed multiples, and digital imaging to expand upon the techniques, concepts and materials used in contemporary two dimensional image making. You will work predominantly in drawing and painting (water based media), but will also have opportunities to experiment with screen printing, risograph, image transfers, and digital output. With an emphasis on material exploration, you will investigate how scale, medium, and color support or distract from the intention of your artwork. You will think about how contemporary artists do visual research in our image and media saturated world, and what it means to appropriate, collage, produce memes, and/or publish in multiple media. Working in multiples and in series, you will practice working iteratively, producing deeper visual exploration of your artistic concept and intention.

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 Intermediate Studio: Social Practice

Fall: 10 units

In recent years, socially-engaged art projects that invite exchange, imagine new social relationships, and provoke individual and collective action have gained increasing prominence. These projects can double as a barter network, a walking tour, a residency program, a protest, or even a post-natural history museum. Rather than being the result of a solitary artist working within an isolated studio, social practice projects are driven by the desire to connect, to look outside oneself in meaningful and tangible ways, and to impact daily life within specific communities. Through the production of work that intersects with a variety of publics, students in this class will use their art practice as a means for directly engaging with the world around them.

60-203 Intermediate Studio: Museum as Resource

Intermittent: 10 units

This course, held within the Carnegie Museum of Art, will explore the museum as a resource for research, experimentation, and development. Students will investigate the ways museums can intersect with their creative disciplines and fields of study, and look at how its unique combination of internal and external assets can be utilized within their practice. We will look beyond the museum as a platform for exhibition and programing, and instead consider its functionality as a classroom and a laboratory. We will approach our time in this course as a research residency, prioritizing exploration and idea development. We will study the history of museums as sites of research for humanities, arts, social sciences, and STEM, and consider how as community art spaces, they're also sites of wonder and play. There will be readings, presentations, class discussions, visits from museum staff and working artists, and creative projects. Students will collaborate but also work toward the development of an individual project.

60-204 Futures

Intermittent: 10 units

In Futures, students will be asked the question, "what if?" Looking backwards and forwards students will grapple with what futures might be possible, impossible, desirable, undesirable and more. Throughout the class, students will explore critical and imaginative world-making and utopian, dystopian, and ambiguous scenarios from a variety of perspectives through the act of making. In addition to speculating and inventing futures, students will explore various histories of the future - through mythologies, origin stories, science fiction, futurist movements across cultural contexts, and more. Students will respond to theory-driven prompts and are encouraged to take risks and explore a variety of different approaches to art-making, as each assignment will not have a specific medium requirement.

60-208 Alternative Photography: Contemporary Antiquarian Printmaking

Intermittent: 5 units

This course will explore alternative photographic techniques and concepts in an effort to extend the boundaries of the photographic image. Through the course we will investigate contemporary digital imaging techniques and apply them to turn-of-the-last-century hand-applied emulsions. Subjects covered are digital imaging, digital negative printing and workflow, hand-applied emulsions, alternative uses of Polaroid photography, and concepts and theory of the still image. As we move through the course we will also consider the theory and history of photography and create images that are not standard in today's imaging practices. A diverse range of contemporary photographic work will be presented to increase students' visual awareness and understanding of the possibilities inherent in the medium. Through work/review sessions, students will evaluate their own ideas and judgments in pursuit of a well-communicated image.

60-211 Intermediate Studio: Sound + Vision - Intro to Audiovisual Art

All Semesters: 10 units

Sound + Vision is an introduction to the analysis and making of visual music, music video, expanded cinema and sound design for moving image media. Through presentations, screenings, demos and workshops students will study the influences of sound on the perception of space and time, and the impact audiovision has on our experience of moving image media. Working on their own and in small groups, students will complete short sound experiments and develop a variety of audiovisual projects.

60-212 Intermediate Studio: Creative Coding

Intermittent: 12 units

This is an intermediate level course in "creative coding": the use of programming and computation within the context of the arts. 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 create art and #8212; AND you're already familiar with the basics of programming, such as for() loops, if() statements, objects, and arrays. Students will develop or deepen the skills and confidence to produce interactive, generative, and computational artworks; discuss their work in relation to current and historic praxes of computer art; and engage new technologies critically. Through rigorous programming exercises, students will develop mastery over the basic vocabulary of constructs that govern static, dynamic, and interactive form, with the aim of applying these skills to problems in creative explorations of transmediality, connectivity, generativity, and immersivity.

60-213 Intermediate Game Studio: Real Time 3D

Intermittent: 10 units

Game Studio: Real Time 3D is a hands-on intermediate course focused on immersive environments, world building, character creation, and real time experiences at the boundaries of gaming. On a conceptual level we'll look at practices within digital art and independent game development: virtual architecture and sculpture, walking simulators, avatar-based performances, and other playable media. On a technical level the course will introduce you to 3D modeling for real time applications (using Blender) and game engine workflows (using Unity) as a scaffolding for advanced courses. Students will work individually. Experience with game engines and 3D modeling is not required.

60-214 Photography and the Narrative of Place

Intermittent: 5 units

This half-semester course will use photography to develop understandings of our surrounding environments. Students will choose a single location to work in, photographing and researching its function in the community, its history, and its relationship to broader concepts and similar spaces. Weekly assignments will require students to work with a variety of photographic methods to construct a narrative that derives meaning from 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 through in-class exercises, weekly discussions and critiques. The course work will culminate in a portfolio of the completed project. The class will study work and books by notable and emerging figures in the medium, including Robert Adams, Carolyn Drake, Roy DeCarava, Rinko Kawauchi, Alec Soth, Carrie Mae Weems, Zoe Strauss, Gregory Halpern, and Susan Lipper. Required readings will include essays and short stories by Wendell Berry, Rebecca Solnit, Teju Cole, Joan Didion, and Georges Perec.

60-216 Animated Storytelling:

Intermittent: 10 units

This course offers an interdisciplinary exploration of the interrelationships between literary and cultural productions, and the art of animation. It combines traditional humanities research in literature, history, and religion with contemporary digital humanities and visual storytelling techniques. Topics offered under this title include "Chinese Mythology and Animation" and "Chinese Ghost Stories and Shadow Play". "Chinese Mythology and Animation": In addition to close reading and critical examination of Chinese mythological tales, their social, historical and cultural origins and modern adaptations, this course also encourages students to create their own "mythological stories" through creative writing, animation, digital storytelling, and immersive media projects. "Chinese Ghost Stories and Shadow Play": Through reading and analysis of the 17th-century literary masterpiece, *Strange Tales from a Chinese Studio*, this course examines the mystical and often overlooked world of Chinese ghost literature and culture. Through practical studio work, students will explore techniques in traditional Chinese shadow play in relation to a broad cultural survey of world heritage shadow play traditions and contemporary media arts affordances. Students are encouraged to create their own ghost stories using various mediums.

60-217 Intermediate Studio: Experimental Hybrid Film - Video and Animation

Intermittent: 10 units

Digital production and post-production technologies have made hybrid moving images that combine live action, animation and image processing ubiquitous. Collage aesthetics and processes are present even in moving image media that appear naturalistic. While developing proficiency in Adobe After Effects and other production and post production tools, students explore the experimental world-building and storytelling possibilities of hybrid moving image media production. The course is structured around technical tutorials and workshops, screenings/discussions, and the creation of hybrid films combining animation, live action, and 2D/3D art. Artists whose work we will look to for inspiration include Yuge Zhou, Shana Moulton, Tabita Rezaire, Rachel MacLean, Chitra Ganesh, Jee Young Lee, Sondra Perry, Miwa Matreyek, Saya Woolfalk, Jacobly Satterwhite, Nunavut Animation Lab, Alex DaCorte, Grace Nayoon Rhee, Nam June Paik, Wangechi Mutu, Joo Young Choi, Cecile B. Evans, Ryan Trecartin, Oskar Fischinger, Karel Zeman, Sin Wai Kin, Winston Hacking, Russ Murphy (RUFFMERCY), Jordan Belson and many others.

60-218 IDEaTe Portal: Real-Time Animation

Fall: 10 units

An introductory course that explores improvisational strategies for making animation within real-time computer graphics frameworks. Advancements in motion capture technologies, real-time 3D computer graphics engines, and visual programming tools for AV synthesis provide open frameworks for the exploration of animation in spatial and interactive contexts. Studio work will explore real-time animation in a variety of contexts, including screen-based interaction, site-specific installation, and spatial immersion. Conceptual frameworks drawn from the histories of video art, animation, and immersive media design will inform collaborative group work and class discussion. Students without the prerequisite may register by instructor permission.

60-219 Intermediate Studio: Stop-Motion Animation

Spring: 10 units

This intermediate animation studio explores principles and techniques of stop-motion animation. Students will explore a range of materials and methods through hands-on animation studio practice. Coursework emphasizes creative content production, experimentation, critical thinking, and collaboration. Pioneering works of historical avant-garde animation inform exercises and project prompts, drawing upon rich global histories and a wide spectrum of practitioners. A combination of rigorous studio practice, historical exposition, and theoretical discourse will equip students with the practical techniques and critical tools required to advance new dimensions in stop-motion animation. Studio work emphasizes collective productions that engage the principles of animation, material sensitivities, and expressive puppetry performance. Historical and theoretical examples guide coursework and class discussion. Screenings, practical tutorials, readings and discussions, will expose students to historical frameworks and contemporary currents in stop-motion animation, equipping students with a variety of conceptual, methodological, and technical resources.

60-220 IDEaTe: Technical Character Animation

Fall: 10 units

Technical Character Animation is a deep dive into the fundamental concepts of character animation and "The Illusion of Life." This course will focus on building a foundation of body mechanics that demonstrate weight, balance, and authenticity. Through a series of strategically designed modules, students will gain a command of the 12 principles of animation, beginning with a ball bounce to more advanced block, spline, and polish workflows. This course is designed to give students exposure to the art of movement as it is done by animators in the fx, film, and game industries.

Course Website: <http://tcacmu.weebly.com/>**60-221 Intermediate Studio: Animation Workshop**

Intermittent: 10 units

This is an open animation studio for students who want to improve existing animation skills and develop a personal animated short. The class will introduce a variety of techniques and concepts for animation production. Using both 2D and 3D tools, animation will be explored through short assignments designed to develop diverse skills and ideas. Each student will develop and produce a short animation. The class will engage in discussion and critique of each other's work along with examples of historic and contemporary animation.

60-222 Intermediate Studio: Digital Animation

All Semesters: 10 units

This is an open animation studio for students who want to improve existing animation skills and develop a personal animated short. The class will introduce a variety of techniques and concepts for animation production. Using both 2D and 3D tools, animation will be explored through short assignments designed to develop diverse skills and ideas. Each student will develop and produce a short animation. The class will engage in discussion and critique of each other's work along with examples of historic and contemporary animation.

60-223 IDEaTe Portal: Introduction to Physical Computing

Fall and Spring: 10 units

This practical project-based course covers the basic technical skills (including electronics, programming, and hardware) needed to build simple interactive objects with embedded behavior using the Arduino microcontroller. A sequence of projects challenge students to apply their technical skills in creative ways. For the final project, the class works with a local group of older people who serve as design clients; students conjure and build them functioning custom interactive assistive devices of a practical or whimsical nature. Sensor inputs covered include an ultrasonic ranger, thermometer, light sensor, and human inputs like buttons and knobs; outputs to affect the world include actuators such as motors, LED lights, speakers, and haptic feedback devices. This introductory portal course has no technical prerequisites. Readings and guest speakers address topics including design, disability, and aging. See courses.ideate.cmu.edu/60-223/s2018/work for examples of prior student projects. Contact rzach@cmu.edu with any questions about the course. Students are encouraged to also take the micro course 99-353 IDEaTe CAD and Laser Cutting.

Course Website: <https://courses.ideate.cmu.edu/60-223> (<https://courses.ideate.cmu.edu/60-223/>)**60-224 Intermediate Game Studio: Interactivity**

All Semesters: 10 units

Game Studio: Interactivity is a hands-on intermediate course focused on innovative and expressive forms of play, game design, and interactive storytelling. Structured as a series of short assignments, the class will involve the radical transformation of ordinary games into meaningful, original, or even impossible artworks, as well as the creation of narrative experiences at the boundaries of gaming. The course will cover basic elements of game design, common programming patterns in game development, and code-less game-making tools. Students will mostly work individually. No programming experience is required.

60-225 Intermediate Studio: Drawing with Machines

Intermittent: 10 units

This is an intermediate studio course in experimental drawing, generative art, computational design, and mechatronic mishegoss. Working at the boundaries of creative code, automation, physical materials, and gestural mark-making, we will explore personal and peculiar new approaches to digital imaging; the development of ultra-niche workflows as a mode of creative practice; and the use of algorithms and machine collaborators as nontraditional intermediaries between mind, hand, and paper. Drawings will be created using AxiDraw plotters and a variety of other specialized robots. Interested students should have JavaScript and/or Python programming experience equivalent to an introductory course such as 15-104, '110 or '112.

60-230 Intermediate Studio: Metals

Fall: 10 units

This course explores a variety of contemporary and traditional approaches to metal fabrication metal with a focus on hot and cold connecting mechanisms. Basic and intermediate metal fabrication techniques will be covered in this class, other sculptural media and connecting strategies will be developed on an as needed basis to accommodate individual projects and inquiries. Students will participate in self-directed research, assigned topic presentations, reading and group discussions, field trips, in addition to hands-on assignments and projects. Students can also incorporate additional non-metal materials of their choice to their projects. The goal for this course is to develop a stronger understanding of metal, its history and role in the contemporary art in order to broaden your visual and material languages when build forms and to choose to put your sculptures together through deep and meaningful ways. It is recommended that a foundations sculpture course be completed as a prerequisite for this class.

60-232 Intermediate Studio: Interactive Objects

All Semesters: 10 units

Interactive Objects is an intermediate sculpture course that explores the concepts, techniques, and tools behind making interactive, responsive, or kinetic art works using physical computing and basic robotics. This studio course introduces students to building circuits, programming with arduino and processing, and integrating human-computer and human-object interaction into sculptures and installations. Through technical demonstrations, assignments, and hands-on explorations, students will build circuits, experiment with various sensors and actuators, program microcontrollers, re-wire existing electronics, and better understand electrical current and conductivity in order to harness it to create responsive elements and motion. Students in this course will be given priority access to the tools and equipment in our physical computing lab, as well as learn how to integrate these tools with our other digital fabrication facilities, including laser cutters and 3D printers, as well as our soft sculpture lab. Students will be expected to do technical assignments as well as individually-motivated self-driven projects based on research and ideas they find personally interesting and compelling. Our research, experiments, and projects will prompt us to consider the relationship between the digital and the physical; as well as the relationships between objects, bodies, technologies, spaces, cultures, and societies. No prior knowledge or experience in the field is required to take this course.

60-233 Intermediate Studio: Soft Sculpture

Intermittent: 10 units

Soft Sculpture is an intermediate studio course that explores the concepts, fabrication techniques, and history behind the creation of sculptural works of art made with fabric, fibers, and soft materials. In this class, we will discuss and demonstrate intermediate sewing and seaming techniques; pattern-making and pattern-following techniques for shapes, experimental forms, and garments; needle-felting and wet felting for wool; loop and cut pile tufting; inkjet printing on fabric; and some basics of weaving, and / or knitting / crochet, as well as embroidery, all with special attention to combining both hand-making and digital techniques when applicable. Projects in this class may include, but not be limited to: fabric forms with armatures; inflatables; stuffed forms; puppets and kinetic soft sculpture; wearables / garments / costumes; woven, tufted, or embroidered tapestries and quilts; and a variety of other experimental soft sculptures. As a class, we will discuss and share relevant art historical and contemporary examples of artists and artworks making use of fabric and fibers, as well as relevant texts and theory. Concepts explored as a group include the transformation of 2d pattern to 3D form; relationship of wearable works to the body and performance; the history of fabric and fiber craft in relationship to gender studies and underrecognized craftspeople; and ideas surrounding transformation and the relationship between craft and technology.

60-234 Intermediate Studio: Ceramics

Intermittent: 10 units

This course is a comprehensive introduction to the craft of ceramic art. Students will investigate clay as an art material for personal expression. The primary emphasis is on studio work leading to a portfolio of finished pieces by the end of the semester. The goal of this course is that students will be able to create expressive, three-dimensional clay forms with the proper understanding of the materials and process. The topics include, but are not limited to, various construction techniques such as soft and hard slab, pinch, coil, and wheel-throwing. Also, surface treatment techniques such as texturing and underglaze painting will be introduced. Discussions will include contemporary artists working in ceramics as well as historical examples and various approaches and techniques for working in clay. This course will consist of demonstrations and lectures, research/writing assignments in and out of class, as well as work time. Students will develop a body of work within the context of the projects to express their individual voice. This course requires students to participate in critiques to analyze their own and others' work and identify strengths and weaknesses while promoting artistic growth and the exchange of ideas. No prior experience in clay is required.

60-236 Intermediate Studio: Mixed Media

All Semesters: 10 units

How Do Things Connect? Even when a sculpture may appear to be made with a single material there are often complex connections between many elements that are intended to either be visible or invisible. How do physical connections between materials and objects affect our visual experience? Can the ways pieces connect create or reinforce meaning in an object? Might you need to invent your own forms of joinery for a sculpture? This class focuses on a variety of contemporary approaches to making mixed media sculpture with an emphasis on how things connect both physically and conceptually. Students will learn a wide range of techniques for assembling dissimilar materials including hot and cold metal joints, wood joinery, adhesives and kinetic and flexible joints. Basic metal fabrication and intermediate wood constructing techniques will be developed on an as needed basis to accommodate individual projects and inquiries. Through in-class practice, assignments, research, presentations, readings, and critiques students will take on self-directed projects that explore how things connect in a deep and meaningful way. The goal for this course is to develop a stronger understanding of materials in order to broaden your options when considering how you choose to put your sculptures together. Connections between parts are just one more aspect of developing your own personal visual language. It is recommended that a foundations sculpture course be completed as a prerequisite for this class.

60-237 Intermediate Studio: Electronic Sculpture

All Semesters: 10 units

Interactive Objects is an intermediate sculpture course that explores the concepts, techniques, and tools behind making interactive, responsive, or kinetic art works using physical computing and basic robotics. This studio course introduces students to building circuits, programming with arduino and processing, and integrating human-computer and human-object interaction into sculptures and installations. Through technical demonstrations, assignments, and hands-on explorations, students will build circuits, experiment with various sensors and actuators, program microcontrollers, re-wire existing electronics, and better understand electrical current and conductivity in order to harness it to create responsive elements and motion. Students in this course will be given priority access to the tools and equipment in our physical computing lab, as well as learn how to integrate these tools with our other digital fabrication facilities, including laser cutters and 3D printers, as well as our soft sculpture lab. Students will be expected to do technical assignments as well as individually-motivated self-driven projects based on research and ideas they find personally interesting and compelling. Our research, experiments, and projects will prompt us to consider the relationship between the digital and the physical; as well as the relationships between objects, bodies, technologies, spaces, cultures, and societies. No prior knowledge or experience in the field is required to take this course.

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

Intermittent: 10 units

In this course students will use photography to develop projects that study our social environments and personal landscapes. This studio explores the ways photography can combine form and concept to derive meaning from place. Students will be assigned two projects for the semester. The first will be a brief study of a familiar space. The second will comprise the remainder of the semester, concentrating on a single location of the student's choosing. Students will photograph and research their chosen place's function, its history, and its relationship to broader concepts and comparative spaces. A series of prompts, readings, lectures, and critiques will help students build their project and develop new ways to approach their subject matter as they create a long-form narrative.

60-241 Black and White Photography II

Fall and Spring: 10 units

Black and White Photography II continues developing your technical skills in analog photography by introducing medium and large format cameras and prints. Large format view cameras remain the state of the art in control and quality in both film and digital photography. These cameras as well as unusual panoramic and pinhole cameras will be supplied. This course emphasizes aesthetic development and personal artistic growth through individual tutorials and group critiques, and will help to build professional level photography skills. Additional topics include digital printing and negative scanning, advanced monotone printing methods, and a focus on exhibition and folio presentation. Students are responsible for the cost of photo paper and film, and a lab fee is charged for the course.

Prerequisites: 60-141 or 62-141

60-242 Digital Photography II

Intermittent: 10 units

Digital Photography II combines digital and analog processes in both color and black and 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.

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

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

Portraiture maintains a unique standing in photography for its direct and collaborative relationship between an individual and a photographer. This course will examine this relationship and the larger contexts which provide the conceptual framework for deriving meaning and understanding from an image of another person. We will study the theoretical and practical aspects of portrait photography in both studio and environmental settings, providing students with an understanding of the genre by developing both technical and conceptual skill sets. Students will utilize analog and digital equipment, learn studio lighting techniques, develop approaches to working with natural light, and explore methods of printing and presentation. Students will gain knowledge in the development of portraiture through the work of notable figures in the medium's history and contemporary field, including August Sander, Dorothea Lange, Walker Evans, Dawoud Bey, Milton Rogovin, Rineke Dijkstra, Zoe Strauss, Susan Lipper, Justine Kurland, Stefan Ruiz, Larry Sultan, Carrie Mae Weems, Roy DeCarava and Alec Soth. Class discussions, readings and critiques will provide an outline for completing both single and serial image assignments.

60-250 Intermediate Studio: Painting

Fall: 10 units

This course serves as an introduction to technical, conceptual and historical practices of painting. Through a variety of painting experiences and presentations using oil media, students progress from observational exercises and exposure to materials and techniques to developing personal processes, imagery and ideas. Class sessions include technical demonstrations, illustrated lectures, personal and group critiques.

Prerequisites: 60-157 or 60-150

60-251 Intermediate Studio: Print Media

Fall: 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.

Prerequisites: 60-157 or 60-150

60-252 Intermediate Studio: Color

Intermittent: 10 units

In this 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.

60-253 Intermediate Studio: Fundamentals of Figuration

Intermittent: 10 units

This studio-based figuration course is designed to introduce students to the fundamentals of the figure. This class will provide a solid understanding of how to begin working with the human form in space. Students will learn how to block out and establish the major structural masses of the body through gesture drawing. We will learn to look "through" the body, understanding its logical underpinnings through rigorous study of anatomy and physiology, both by lecture and observation. Students will work from the skeleton, draw and paint musculature, and spend extensive time working from the live model or models. Both dry and wet media are encouraged: graphite, charcoal, metal point, colored pencils, pastels, ink, watercolor and gouache can be openly explored in this course.

60-254 Intermediate Studio: Photography

Intermittent: 10 units

A photograph captures a moment of time and freezes it in place. In this introductory course, students will reflect on their own lives, capturing people, places and things, through portraiture, interior space, landscape and still lifes. We will consider the formal qualities of light, composition, color, sequencing, editing and print as we take, shape and print our own digital photographs. The course will be framed by field trips, readings, discussions and presentations that look at how artists make photographs.

60-255 Intermediate Drawing Studio: Trails of Touch

All Semesters: 10 units

We will emphasize technical aspects of traditional and performative drawing that is the compulsion to leave tangible traces of our presence. The sensual interaction of body as instrument in contact with a surface will be explored and analyzed as we develop our perceptual, conceptual and imaginative skills. Experimentation in and devotion to our studio practice will extend our capabilities and heighten our sensitivity to a diverse range of materials and methods of mark making and rendering. Scratching, scraping, scoring, caressing, stroking, burnishing, brushing, dragging, wiping, scrubbing and erasing are some of the means through which we will record our observations, thoughts and feelings on a wide range on substrates. Formal presentations, technical demonstrations, visiting lectures, museum trips, and film screenings complement studio time devoted toward independent and class projects. Material fee for reduces cost for special papers and supplies like silver point, traditional gesso, large paper rolls etc.

60-258 Intermediate Studio: Screenprint

Intermittent: 10 units

This course is a comprehensive and intensive study of Serigraphy (screenprinting), one of the most versatile and contemporary of printmaking techniques. The course is focused upon the mastery of this process.

Students will explore multiple methods of image making (from hand-drawn to digital imaging) and will be introduced to CMYK printing. The emphasis of this course is on artistic work on paper, but will also be exposed to the ways that screenprint can work across a wide range of different media: from 2D (paper, canvas, cloth) to 3D (book forms, sculpture, installations) and utilizing printed multiples in participatory and exchange based artworks.

60-260 Intermediate Studio: Imaging

Fall: 10 units

TBA

60-263 Intermediate Studio: Graphic Novel

Intermittent: 10 units

In this course, students will critically and creatively engage with the medium of comics to learn how to better communicate their ideas in this format as well as challenge its boundaries. A substantial portion of the course will focus on familiarizing students with the basics of storytelling in a sequential narrative format and creating opportunities for students to discover, hone and explore their own voice and style. In addition to creating new work, students will also explore the history of comics and the origins of the "modern" graphic novel. Students will also be exposed to both graphic and non-graphic artists whose works has challenged and redefined the genre. We will explore these artists in order to understand how our own work borrows from and draws upon a rich lineage. Students will also be expected to think beyond the commonly accepted notions of comics and to question the relevancy of their work in this medium. Finally, each student will produce a new body of work that will culminate in the production of a 4-5 "page" "sequential" narrative.

60-276 Photography and the Ephemeral

Intermittent: 10 units

Photography and the Ephemeral is an interdisciplinary photography course designed for students of various disciplines interested in exploring the relationship between images and the ephemeral: things that last only a short moment in time. Throughout the semester students will explore different themes and ways to approach ephemeral imagery such as; still lifes, installations, performances for the camera, and the short-lived nature of images both physical and digital. Participants explore these themes through weekly presentations, discussions, assignments, and critiques.

60-277 Constructing Meaning with Photographs

Intermittent: 5 units

Constructing Meaning with Photographs will discuss ways in which multiple images can be used to expand upon and clarify the intended message of individual photographs and a visual series in whole. Throughout this half-semester studio course, students will work through a variety of approaches to image sequencing and editing. At the start of the course, students are expected to have a significant body of completed work or an easily accessible archive of print resolution images (100+ images) to work with for out of class assignments. Using their archive, they will edit sequences for different presentation methods including gallery exhibitions, books and zines, websites, linear displays, and print portfolios. Weekly in class editing exercises will conceptually correspond with out of class assignments to allow for experimentation and conversation around different approaches to photographic sequencing. Lectures, readings, guests, exhibition visits, and book presentations will provide additional support for understanding how to use photographs in series to build meaning.

60-278 Infinite Rooms: Photography and Installation

Intermittent: 10 units

Infinite Rooms is an interdisciplinary photography course designed for students of various backgrounds interested in exploring the relationships between place, images, and installation. This course will investigate the methodologies of how a place is documented, constructed, and imagined in photographs. This class will introduce a critical survey of images, films, and texts from artists who work at the intersection of installation and images. Throughout the semester various prompts will introduce different frameworks for thinking about photography and installation, such as the dramatic; the psychological; and the personal. Students will utilize digital and analog equipment, learn how to use a large-format view camera, learn studio lighting techniques, develop approaches to working with natural light, and explore methods of printing and presentation.

60-279 Photography and the Ineffable

Intermittent: 10 units

This course explores the relationship between photography and the indescribable, intangible, and hard-to-see. From the spiritual, to the sublime, to the abstract; we will review different frameworks for thinking about the ineffable and how it relates to photographic work. Students will explore these themes through weekly presentations, discussions, assignments, writing workshops, and critiques. We'll look at artists who think critically about photographic representation and investigate a heightened sensorial interpretation of the world. This class will encourage experimental methods and approaches to photography.

60-333 IDEATe: Animation Rigging

Spring: 10 units

Animation Rigging explores processes for building digital skeletons and control systems to drive computer animated forms. This course investigates vital techniques and concepts to create expressive, fully articulated characters for computer animation, film, and game production. Beginning with rigging fundamentals, coursework will advance through various systems and methods that are needed to convey motivated movement and expression in a variety of character forms. Certain key topics include kinematics, joint orientations, driven keys, direct connections, space switching, corrective blend-shapes, custom attributes and graphic user interfaces (GUIs), skinning and deformation. Additionally, coursework provides an introduction to scripting methods for rig creation, including expressions, Python, and MEL. Students will be provided a valuable range of tools that meet production standards for animated film and game creation, as well as a necessary conceptual framework to enable complex problem solving at all levels of rig creation. Anyone interested in the artistic and technical sides of computer animation are encouraged to enroll. Previous experience with Autodesk Maya/3D animation is preferred.

60-335 IDEATe Special Topics in Animation: Story Development

All Semesters: 6 units

IDEATe Special Topics in Animation: Story Development provides insight and strategy for animated storytelling in film and media production. This mini-studio seminar draws upon diverse historical examples to highlight storytelling strategies across cultures and production paradigms. Over this seven-week course, students will develop their own original stories in the forms of scripts and pitch packets, to be later produced as animated content. Discussion and critique will cultivate storytelling skills with greater understanding for audience, form, and cultural context, providing essential tools for communication through animation.

60-337 IDEATe Special Topics in Animation: Storyboarding

All Semesters: 6 units

IDEATe Special Topics in Animation: Storyboarding focuses on the translation of stories and ideas into sequential image boards for animation. This mini-studio seminar exposes the visual grammar of filmic storytelling through analysis and production of storyboards and animatics. Over this seven-week course, students will develop their own original storyboards and animatics to be later produced as animation. Analysis of historical examples will reveal strategies for storytelling through sequential narrative and animation. Discussion and critique will cultivate storytelling skills with greater understanding for audience, form, and cultural context, providing essential tools for communication through animation and design.

60-343 Professional Practices in Photography

Intermittent: 10 units

This studio course will introduce students to the working methods of professional photographers and artists. For the first half of the course students will develop a substantial body of visual work. They will then use that work in the second half of the semester to produce portfolios across a variety of media (digital, print, web, exhibition, etc.). Throughout the process they will develop skills in constructing and completing projects, cultivate their personal vision and aesthetic tastes, explore methods of disseminating their work to larger audiences, establish time management and planning around long form projects, and acquire an understanding of the marketing, outreach and community building necessary for working artists to build and sustain a career.

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

60-350 Professional Development for Creative Practices

Fall and Spring: 9 units

This course is intended to expose students studying in creative fields to the basic principles, skills and functions of business used every day in creative practices and industries. Supporting a creative practice - whether an individual studio practice, a temporary collaboration or commission, or an incorporated business or non-profit - all require a foundational knowledge of basic organizational, legal, and financial structures and practices. Throughout this seminar-style course, students can expect to develop a starting knowledge of basic business concepts; learn a foundational understanding of ethics and best practices in business; develop problem-solving skillsets and methodologies for managing creative projects and programs; and practice applying these learnings to their own creative practices. Topics covered will include, but are not limited to: basic business structures; intellectual property; Contracts and employment; methods for generating income and fundraising; financial management and taxes; marketing and communications; negotiation and compromise; and elements of business strategy development. This course assumes no prior background in business education or administration experience.

60-351 Entering the Artworld: Mapping a career path in an uncharted artworld

Intermittent: 9 units

Building a career as an artist is a nuanced endeavor that looks different for each individual. Unlike other fields, where a set professional structure ushers graduating students into a career, the artworld is self-navigated. This course gives artists a foundational understanding of the multifaceted profession they are entering, where they will learn about key support structures like museums, commercial galleries, DIY spaces, residencies, and much more. They will also train in a wide range of concrete skills, including writing artist statements, creating a network, building an online presence, and pricing an artwork. The goal of this class is to give students the awareness, skills, and resourcefulness they need to chart their own course as a studio-based fine artist in an artworld that's ever-changing.

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 Critical Studies: 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? What does art look like in a post-internet age?

60-356 Critical Studies: Once Upon A Time: A Survey of International Fairy Tale Film

Intermittent: 9 units

Fairy tales have been a part of cinema from the very beginning. Since George M and #233;li and #232;s' 1899 Cinderella, filmmakers from around the globe have continuously returned to the genre not only for escape into enchanted worlds, but also for social critique, with stories of injustices avenged, class oppression overthrown and gender roles expanded. This course decenters the conception of the genre fixed by Disney and Hollywood to examine fairy tale films from around the world. We will encounter a poetics and politics of wonder in international films about transformation, wish-fulfillment and reversals of fortune that deliver a situated counterpoint to the hegemony of a colonizing and commercialized poetics of magic. The transformative power of fairy tales can be approached from a variety of perspectives. We will analyze how stories themselves function as shape-shifters, morphing into new versions of themselves as they are retold and as they migrate into other media. Beyond looking at the films as texts we will consider the affective qualities of how their formal and aesthetic aspects create wonder, delight, humor, anxiety and terror. What are the stakes of the fairy tale's varied transformations today, for whom? In this class we will watch and discuss films, stories and historical and critical texts. Films screened and discussed include: Kwaidan (Japan, 1964), To Sleep With Anger (USA, 1990) El Laberinto del Fauno (Mexico-Spain, 2006), Green Snake (Hong Kong, 1993), Peau d'Âne (France, 1970), Tropical Malady (Thailand, 2004) Sampo (Finland/Soviet Union, 1958) and many more. Assignments include: short written responses to the films and readings, study group activities, and one collaborative creative research project.

60-357 Critical Studies: Nation's Nature - Art, Environment and the American Landscape

Intermittent: 9 units

This course will explore how representations of the American landscape create an ever-shifting national identity. Slogans like "Make America Great Again" trade on nostalgia and a desire for a fixed narrative but ignore the experience of marginalized groups. The actual environment, meanwhile, is being destroyed by the same people who use it as a symbol of power and purity. From painting to photography, print, animation, sculpture and social practice, we will consider how art has fueled or challenged nationalism, patriotism, American exceptionalism. Readings in historical texts, narrative essays and cultural geography, along with discussions and presentations will provide art students a broader context for their own research.

60-359 Critical Studies/Adv. ETB: Playful theory: critical topics in game culture

Intermittent: 9 units

This hybrid seminar course combines games studies, game criticism, and research-based art to examine the history, contexts, and frontiers of play. Digital and analog games will be approached through a variety of lenses: games as culture, systems, technologies, commodities, etc. While not geared toward the technical development of videogames, the coursework will include creative projects beyond writing and discussion. The goal is to provide conceptual tools to enrich your design/art practice and tackle a variety of academic topics in a playful but rigorous way.

60-362 Critical Studies: Art Writer: Writing as Object, Criticism, and Experiment

Intermittent: 9 units

ART WRITER will strive to bring together the intersecting discourses of artists' use of writing as an object, exploring experiments by artists, poets, novelists and critics who use language and theory as invention. The idea of experiment implied here emphasizes the urgency that art writing moves 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 Harryette Mullen, Fatimah Asghar, Jamaica Kincaid, Ta-Nehisi Coates, Frances Stark, Kathy Acker, Samuel Delaney, Trisha Low, Glenn Ligon, Brian Kim Stefans, Pajtim Statovci, Tan Lin, Adam Pendleton, just to name a few. International projects of Art and Language, Fluxus, the Dark Room Collective, Los Contempor and #225;neos, as well as more recent iterations will be investigated/researched. This is a writing intensive seminar with experimentation at its core. Members will workshop their writing: revise, rethink, perform, and publish.

60-364 Critical Studies: Decolonize Now!

Intermittent: 9 units

This course explores ways to "delink" artmaking and its history from the "colonial matrix of power." Examining critical discourses surrounding decoloniality, as well as post-coloniality, students will test and complicate foundational concepts such as hybridity, empire, migrant subjectivity, consciousness of the Borderlands, post-occidental reason, pluriversality, and transmodernity. Over the duration of the semester, students will be tasked to form a corroborated viewpoint of their own in relation to theoretical texts by Walter D. Mignolo, Frantz Fanon, Okwui Enwezor, Gloria Anzaldúa, Rey Chow, Hamid Dabashi, Gayatri Chakravorty Spivak, Rob Nixon, Michael Hardt and Antoni Negri, Edward Said, Homi Bhabha, Paul Gilroy, and others. Artists under consideration may include H and #233;lio Oiticica, Walid Raad, Tavares Strachan, MLT Collective, John Akomfrah, Dahn Vo, Trinh T. Minh-ha, Lubaina Himid, Jimmie Durham, Jeannette Ehlers, Martine Gutierrez, Coco Fusco, Lorraine O'Grady, Judy Baca, and ASCO. Exhibitions such as *The Other Story: Afro-Asian Artists in Post-War Britain (1989-90)*, *All the World's Futures, Venice Biennale (2015)*, *Verboam and #233;rica (2017)*, *Decolonizing Appearance (2018)*, *Memories of Underdevelopment: Art and the Decolonial Turn in Latin America, 1960-1985 (2018)*, *May You Live In Interesting Times, Venice Biennale (2019)*, *The Warmth of Other Suns: Stories of Global Displacement (2019)*, and *When Home Won't Let You Stay: Migration through Contemporary Art (2019)* are crucial in understanding the framework of this class. Remember Anzaldúa's words: Because I, a mestiza, continually walk out of one culture and into another, because I am in all cultures at the same time, alma entre dos mundos, tres, cuatro, me zumba la cabeza con lo contradictorio. estoy nordeada por todas las voces que me hablan simult and #225;neamente.

60-365 Critical Studies: Queer Power in Art Theory

Intermittent: 9 units

Queer power is a form of (anti-)knowledge that demystifies phallogocentrism and neuters heteronormativity. This class examines how queer theories empower - and can originate in - art making and its history. Over the course of the semester, students discuss recent publications in the field such as Rogers Brubaker's *trans: Gender and Race in an Age of Unsettled Identities (2016)* and Paul B. Preciado's *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era (2013)*. Students also investigate recent exhibitions exemplifying oppositional epistemology such as *Trigger: Gender as a Tool and a Weapon (The New Museum, 2017-18)* and *Hide/Seek: Difference and Desire in American Portraiture (National Portrait Gallery, 2011)*. Interweaving the canons of queer thoughts with newer voices such as Lee Edelman, Tim Dean, and Maggie Nelson, this class contextualizes Paul Mpagi Sepuya, Tschabalala Self, Wu Tsang, and other artists who embody queer power today.

60-369 Critical Studies: DEEP FAKE, AI and Beyond: Posthumanism & Contemporary Art

All Semesters: 9 units

Is Post-humanism just another kind of humanism? Is the idea of difference at risk when thought is no longer attached to a body? What are the possibilities of imagining a queer phenomenology - or a transhumanism that challenges the limits placed on gendered, sexualized, racialized and so-called "able" bodies? How are our concepts of affect and authenticity being transformed by ideas of robotic and artificial intelligence? What are the various forms of subjectivities generated by machine-learning enabled media? How are constructions of "cheapfakes," "shallowfakes," and "deepfakes" posing ethical dilemmas in information and world-making landscapes? This seminar hopes to excavate such questions and many more produced by examining the competing and shared perspectives developed by contemporary artists and critical theorists across posthumanist, transhumanist and new materialist paradigms.

60-372 Critical Studies: The Precarious Body in Contemporary Art

All Semesters: 9 units

This seminar will examine images and projects in contemporary art that deal with debates concerning ideas that had already begun brewing in the 1980s and early 90s, that addressed issues of institutional violence circulating under the guise of "discourse," or that delved into ideas of difference and alterity through the notion of "abjection." More recently, the idea of precarity has taken central stage as a way of thinking through, and taking action against, the kinds of structural oppression that deems certain groups of people vulnerable to repeated forms of aggression, poverty, illness, and displacement without protection. We will also explore a seemingly opposite corollary: the SUPERCLEAN a trope that exploits the capacity of certain technologies to present hygienic forms of representational violence at the level of the digitally manipulated image. We will read the work of Tung-Hui Hu, Zuzana Kovar, Judith Butler, Claudia Rankine, Pamela Lee, Frantz Fanon, Sarah Ahmed and study the projects generated by artists, such as Lygia Clark, H and #233;lio Oiticica, Superflex, Anicka Yi, Mika Rottenberg, Carolyn Lazard, Katherine Behar, Trisha Baga, Hito Steyerl, among others, as a way of interrogating these State mandated structures of material and psychic repression. A major part of the course will examine how contemporary artists responded, acted, and produced addressing the precarious body as the site for political and aesthetic resistance.

60-374 Critical Studies: Picturing Asian America

Intermittent: 9 units

Asian American art is not Asian art. Asian art is not Asian American art. The conditions in which we make art in the United States have always been unique: our art has evolved to be antiracist, anti-patriarchal, and for the sake of the undercommons. Expanding oppositional consciousness, the historical context for our exploration and inquiry is enriched by Asian American literature and film; we welcome and renew the lessons of our shared minor feelings. This class also celebrates the Asian American history of collaboration with other BIPOC (Black, Indigenous, and People of Color) communities and the tradition of intersectional artmaking against the hegemonic canon.

60-378 Critical Studies: Science Fiction Film

Intermittent: 9 units

Science Fiction Cinema offers an idiosyncratic survey of the science fiction film genre. More than just a form of entertainment, science fiction is a powerful tool for exploring our hopes, fears, and dreams about the future. This class reveals how science fiction films often grapple with philosophical and ethical questions about the nature of humanity and our place in the universe. Together we will explore how filmmakers have used the science fiction film genre to explore both the timeless human condition and the complex issues of their time. In addition to studying the films themselves, we will consider the various cultural, social, political, and technological contexts in which they were created as well as how the films have themselves influenced society and culture. Additionally, we will examine the creative and technical innovations that filmmakers use to create stunning and thought-provoking works of art. Throughout the course, we will watch and analyze a variety of science fiction films, from international and independent productions like *"World on a Wire"*, *"Stalker"* and *"Advantageous"* to blockbuster and studio productions like *"Nope"*, *"The Wandering Earth"* and *"The Matrix"*. Through weekly readings, film screenings, and class discussions, students will learn to analyze film as a creative medium of social commentary and critique. Assignments will include personal written responses to the films and readings, visual essays, and creative projects.

60-384 Critical Studies: Ecstatic Experience: Experimental Film & Video History/Theory

All Semesters: 9 units

"An Ecstatic Experience" is the name of Ja'tovia Gary's six-minute film made in 2015 that takes the idea of "ecstasy" and flips it on its head implying a radical reversal of pain and suffering into an affirmation of resistance and freedom. This seminar focuses on complex, risky experiments within both historical and contemporary practices of experimental video and filmmaking in which ideas about the ecstatic are explored across filmic and new media materiality, immersion, duration, sound design and mark-making. Reaching back to the kinds of ecstatic models used during the sixties and seventies, fluctuating between feverish dream-states, psychedelic trips, orgiastic burlesques, impassioned revolutionary plans (Nam June Paik, Paul Sharits, Ben Van Meter, Carolee Schneemann, Kenneth Anger, Stan VanDerBeek, Black Audio Film Collective), and racing forward to the legacy of that period, we will view and discuss a vast range of artists, such as New Red Order, Wu Tsang, Peggy Ahwesh, Leslie Thornton, Kevin Jerome Everson, Ja'tovia Gary, Cauleen Smith (just to name a few). Questions we will explore include: What does it mean to experiment? How have temporal, spatial and political parameters shifted? What new models have problematized and replaced earlier ecstatic models of media-inspired social change and experimentation?

60-385 Crit. Studies: Visual Pleasure - Patterning & Ornamentation in Contemporary Art

All Semesters: 9 units

In his influential essay, "Ornament and Crime," Adolf Loos questioned the use of ornaments based on a notion of progressive history, in which the past is subordinated to the future. Modernism universalism coated as purity and functionalism relegated notions of excess to the past, along with it, visual pleasure, ornamentation, patterning, and the use of saturated color in art, architecture, and design. This course focuses on the recovery of color, patterning, and ornamentation in contemporary art led by non-western, women, queer, and/or BIPOC artists as a resistance to western 'order' which deems these aesthetics 'primitive,' 'feminine,' and 'irrational.' We will use contemporary art, artistic movements, and artists as case studies to study how ornamentation and patterning can form networks of resistance by foregrounding visual pleasure and by underscoring healing and joy as ways to be in the world. There will be 2 guest lectures from artists, curators, and/or art historians and weekly readings. Artists to be discussed include Chris Ofili, Raqib Shaw, Guadalupe Maravilla, Mickalene Thomas, Saya Woolfalk, Devan Shimoyama, Nick Cave, Xenobia Bailey, Joyce Kozloff, Judy Chicago, Barbara Chase-Riboud, Valerie Jaudon, Miriam Schapiro, El Anatsui, Monir, and many others.

60-398 Critical Studies: 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 animation, web based work and emerging forms. Animation will be analyzed and discussed in relation to the social movements and technological innovations that affected 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

The primary goal of Senior Studio is to create a context for students to develop and realize an ambitious and self-defined creative project. With the guidance of faculty, each student will pursue their own artistic goals and develop their ability to sustain focused artistic activity while developing their own voice. Additionally, Senior Studio will help students to: Foster a community and shared sense of purpose in an atmosphere of mutual support, critical dialog, knowledge exchange and camaraderie; Cultivate and apply professional practice skills by preparing for life after graduation; Participate in studio visits with a multidisciplinary team of faculty, visiting artists and critics; Collaboratively produce a successful Open Studio event on the last day of the semester.

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.

60-403 Senior Critique Seminar

Fall and Spring: 10 units

Senior Critique Seminar comprised of group discussions that analyze the conceptual and aesthetic frameworks that surround each student's individual studio practice. The course supports independent inquiry, mature studio practice and both an in-depth critical reading of visual art and an increased comfort in the articulation of ideas and processes. Each student can expect two or more hour-long critiques throughout the semester, paired with ample time for individual studio work. These course discussions will also be informed by the Visiting Artist Lecture series and concepts and concerns carried from studio and academic seminar classes.

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: 60-110 or 60-210

60-407 IDEATe: Experimental Sound Synthesis

Spring: 9 units

This is a course that will guide students into the world of experimental approaches to music and sound production, with particular emphasis in some of the key practices and concepts developed in the 20th and 21st centuries. We will examine a variety of ways in which sound works are made and perceived; understanding the historical perspectives and critical viewpoints of each approach through the application of hands-on practicum. The topics covered in the course are divided into three large areas: the art of sound, the use of technology in the production of sound works, and the creation of interdisciplinary sound installation. Students from different disciplines will work together to collaborate on the designing, prototyping and execution of a series of ambitious projects in response to the topics covered in class.

Course Website: <https://courses.ideate.cmu.edu/57-344> (<https://courses.ideate.cmu.edu/57-344/>)

60-408 Advanced ETB: Expanded Cinema

Intermittent: 10 units

Expanded Cinema is an innovative course that redefines the traditional boundaries of cinematic expression. Through hands-on experimentation with real-time analog and digital audiovisual systems, students will create multimedia performances, live cinema and immersive nightlife experiences. Through a combination of theoretical inquiry, practical experimentation, and creative production, students will interrogate and expand the possibilities of cinematic experience. Collaboration lies at the heart of expanded cinema, often involving interdisciplinary partnerships between filmmakers, visual artists, musicians, performers and technologists. In this course, students will have the opportunity to collaborate with their peers from diverse backgrounds, fostering a spirit of experimentation, dialogue and collective exploration. Tools and techniques students will work with include hardware video switchers, multi-camera production, video synthesis, projection mapping, real-time compositing and special effects, experimental sound and music, Hydra, Cables GL, Touch Designer and more.

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

60-413 Advanced ETB: Real-Time Animation

Intermittent: 10 units

An exploratory studio that considers improvisational strategies for making animation within real-time computer graphics frameworks. Advancements in virtual production, real-time computer graphics engines, and visual programming tools for AV synthesis provide open frameworks for the exploration of animation in spatial and interactive contexts. Studio work will explore real-time animation in a variety of contexts, including screen-based interaction, site-specific installation, and spatial immersion. Conceptual frameworks drawn from the histories of animation, video art and Expanded Cinema, and immersive media design will inform collaborative group work and class discussion. Students without the prerequisite may register by instructor permission.

Prerequisites: 60-110 or 60-210

60-414 Advanced ETB: Animation Art and Technology

Spring: 12 units

Animation, Art, and Technology is an interdisciplinary, Art and Computer Science, cross-listed course. Faculty and teaching assistants from computer science and art teach the class as a team. It is a project-based course in which interdisciplinary teams of students can produce animations across platforms from single channel to augmented reality. 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 and Unity leading toward more advanced applications and extensions of the software such as motion capture and algorithms for animating cloth, hair, particles, and immersive technologies.

Prerequisites: 60-333 Min. grade C or 60-220 Min. grade C or 60-110 Min. grade C or 60-125 Min. grade C

60-415 Advanced ETB: Animation Studio

Intermittent: 10 units

This is an open animation studio for students who want to improve existing animation skills and develop a personal animated short. The class will introduce a variety of techniques and concepts for animation production. Using both 2D and 3D tools, animation will be explored through short assignments designed to develop diverse skills and ideas. Each student will develop and produce a short animation. The class will engage in discussion and critique of each other's work along with examples of historic and contemporary animation.

Prerequisites: 60-125 Min. grade C or 60-220 Min. grade C or 60-333 Min. grade C or 60-110 Min. grade C

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 Art

Intermittent: 10 units

In this advanced studio course, students will focus on creating experimental works of video art exploring a variety of both historical and contemporary approaches to the field. Building from their prior foundational moving image courses, students will have the opportunity to dive deeply into an array of formal and conceptual approaches to the medium. Throughout the semester, students will produce several major assignments focused on the production of video artworks exploring visual effects and abstraction, documentary forms and video essays, performance-for-video, generative video, and multichannel media installation. Each assignment will be supported through relevant video and audio technical demonstrations. Additionally, all the major assignments will be supported by reading and screening homework, benchmark check-in assignments, workshops, visiting artist lectures, and in-progress meetings and critiques. This class will give students the opportunity to independently explore their evolving material and conceptual interests within the language of video and allow students to develop their own research and fabrication strategies unique to their ideas with a supportive community operating in dialogue throughout the planning, making, and exhibiting process. The class will culminate in a public screening event at the end of the semester.

Prerequisite: 60-110

60-419 Advanced ETB: Experimental Game Studio: Digital Playgrounds

Intermittent: 10 units

A hands-on intermediate course focused on immersive environments, world building, and real time experiences pushing the boundaries of gaming. On a conceptual level we'll look at practices within digital art and independent game development: virtual architecture and sculpture, walking simulators, avatar-based performances, interactive art, procedural animation, environmental storytelling. On a technical level the course will introduce you to 3D modeling (Blender), game engine workflows and scripting (Unity) forming a scaffolding for advanced Electronic and Time-based courses.

Course Website: <http://mycours.es/>

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, puppeting, non-traditional materials, manipulation of motion and performance capture data and immersive environments.

Prerequisites: 60-110 or 60-220 or 60-333

60-425 Adv. ETB: (Im)Possible Worlds: 2D Animation, Motion Graphics and Visual Effects

Intermittent: 10 units

While developing proficiency in Adobe After Effects (and other tools) students will explore the experimental worldbuilding and storytelling possibilities of hybrid moving image media. This course is structured around technical tutorials and workshops, readings and screenings, the creation of collaborative and individual moving image projects, discussion and critique. Some of the themes we will explore include "The Fantastic" as expressed in the genres of horror, science fiction and fantasy. Artists whose work we will look to for inspiration include Jacoby Satterwhite, Shana Moulton, Rachel MacLean, Rachel Rose, Charles Atlas, Sondra Perry, Max Almy, Nam June Paik, Stan Van Der Beek, Zach Blas, Laurie Anderson, Cecile B. Evans, Ryan Trecartin, and many others.

60-428 Advanced ETB: Drawing with Machines

Intermittent: 12 units

This is an advanced studio course in experimental drawing, generative art, computational design, and mechatronic mishegas. Working at the boundaries of code, automation, physical materials, and gestural mark-making, we will explore personal and peculiar new approaches to digital fabrication; the development of ultra-niche workflows as a mode of creative practice; and the use of algorithms and machine collaborators as nontraditional intermediaries between mind, hand, and paper. Units in this course include: rule-based art and conditional design; chance and stochastic composition; real-time interaction and contingency; asemic cartography; synthetic automatism and ersatz perception; and more. Through rigorous exercises in freestyle computing, participants will develop skills in the control of machines by (e.g.) AxiDraw, Line-Us, Scribit, Rotrics, and Universal Robots to govern line, texture, tone, shape and mass in a variety of wet and dry drawing media. Interested students should have a portfolio of creative visual work, and programming experience equivalent to an introductory course such as 15-104, '110 or '112. Enrollment by permission of instructor.

60-429 Advanced CP/ETB: Digital Worlds: Making and Performing in Digital Contexts

Intermittent: 10 units

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

This is a project-based studio class that allows for student-driven development of an artistic practice in 3D media, installation, site specific work, and systems. Ours is a widely inclusive and experimental definition of "sculpture." Aspects of making such as scale, medium, materials, methods, processes, and concept are unconstrained in projects assigned, while time and site become the more specific lens through which artistic peers may engage in group dialogue over common constraints. Through lectures, readings, discussion, individual meetings, hands-on-making, and group critiques, students will develop their abilities to brainstorm, make proposals, and turn ideas into action. Artists will build 3 to 4 major projects from start to finish, develop a working artist's statement and bibliography, and hone their individual sense of creative identity through the development of personal research interests, aesthetic sensibilities, and their own critical language surrounding common themes through their projects. An emphasis will be placed on extremely contemporary art, and students will make frequent presentations on new art works relevant to class discussions, as we develop our own class database of sculptors, fabricators, media artists, installation artists, makers, and thinkers. The concepts we will explore as a group include physical and sensorial properties such as scale, weight, balance, materiality, and connectivity; relationship of form to context and site; function, transformation, translation, iteration, and interactivity; and the continued relevancy of hand-making and physical construction in an era of post-industrial post-internet capitalism.

60-431 Advanced SIS: Installation

Intermittent: 10 units

This course explores a broad range of sculptural issues concerning the practice of Installation Art. This Studio course will primarily emphasize immersive environments (but not necessarily), given the circumstances of remote learning and one's bedroom as studio, or a similar venue, small and intimate may be more appropriate. Students expected to involve an ensemble of elements: objects, (found, purchased, reused, appropriated), made from an array of any kind of materials including natural materials; combined with time-based media; video, audio, performance, light etc. to create relationships within a particular space possibly as a 'site specific' venue in order to immerse the viewer within. Consider the notion of an immersive stage set, and the importance of documentation, 'Fabricated To Be Photographed, Video graphed, Digitally Imaged and/or Performed In.' Emphasis is on research about "place" and the proposal process for a specific context. Various artists, strategies, methods and materials will be investigated through projects, readings, lectures, visiting artists and discussions. Exercises and gestures are assigned initially, then students are expected to propose and establish their own projects/practice later in the semester.

60-433 Advanced SIS: Ceramics

Intermittent: 10 units

In this class, advanced ceramic students will investigate clay as an art material for personal expression. Students will build on their technical skills using materials and processes appropriate to their concepts while developing aesthetic sensibilities using historic and contemporary references in ceramics and other arts. Each student has the option to direct their own projects with guidance by the instructor upon demonstrating a complete understanding of the various construction skills and surface treatment techniques used in the medium. Students are expected to learn how to organize their projects and practice time management to generate and complete projects within the given time. Course work supports the development of a body of work to be used as a professional portfolio. Students are required to participate in critiques that analyze their own work and that of other artists and class participants to identify strengths and weaknesses in research and promote the growth and exchange of ideas. This class will consist of demonstrations and lectures as appropriate, research/writing assignments in and out of class, as well as work time. Students are required to develop a body of work within the context of the projects to express their individual voice.

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. This is a repeatable class that will add to the tools and techniques acquired in earlier metals classes while expanding individual growth within the concept and context of sculpture.

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 themes: eco-material use and reuse, growing systems, environmental impact and a variety of other related issues. The semester is structured with initial exercises and a series of small gestures that lead to a major project. Students are required to explore and to develop proposal making skills in order to implement a site-specific project; either real or virtual. Students to produce a project complete with a well-documented outcome to include: visual representation, research and written descriptions.

60-440 Advanced SIS: Sculpture After the Internet

Intermittent: 10 units

Hito Steyerl asked, "Is the internet dead? ...[it is] completely surveilled, monopolized, and sanitized by common sense, copyright, control, and conformism... what happened to the internet after it stopped being a possibility?" This course assumes it is the artist's role to find and create possibilities in all contexts, and investigates what it means to create new possibilities by making physical objects, experiences, sculptures, installations, and systems in an era post-internet. As a project-based experimental lab, this class asks students to navigate back and forth between digital and physical creative tool sets to create new works. We will take inspiration from the history, theory, ideologies and technologies surrounding the internet, as well as from artists, animators, and engineers working on and around the internet today. We will explore issues surrounding automation, digital fabrication, and online maker / fabricator culture as tools to be used, but also as socio-political forces. Other concepts we will explore as a group include the relationship between body and technology; cybernetics, robotics, AI, and the uncanny valley; the relevancy of hand-making and physical construction post-automation; "image-objects;" scripted spaces; the producer-consumer continuum; the divisiveness and productiveness of online subcultures; anonymity; accessibility of information and production tools; and the spatial and temporal effects of inhabiting both digital and physical worlds. If we understand our current epoch as an era dominated by onscreen and networked experiences, this course investigates what it means to embrace, explore, explode, celebrate, negate, critique, reverse, or oppose that through the making of sculpture, broadly defined. This course assumes knowledge of at least very basic 3d modeling, and/or physical computing, and/or coding, and/or 3d media fabrication/construction techniques.

Prerequisites: 60-131 or 60-130 or 60-212 or 60-210 or 60-134 or 60-133 or 60-132

60-443 Adv. SIS: Special Topic

Intermittent: 10 units

In this course, students will learn both synthetic and natural dyeing techniques from dye painting, to mordant printing, to eco printing batik, tie-and-dye, indigo dyeing and more. Through readings, we will also explore the human quest for color throughout time - from the exploitation of flora and fauna to profiteering journeys across seas. The aim of this course is to introduce students to a variety of methods of dyeing that they may choose to incorporate into their current or future work, and leave with a new eye toward the origins, importance, and cultural significance of color.

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.

60-447 Advanced CP: Art at the End of the World

Intermittent: 10 units

The world is awash today in stories that anticipate an end to the world as we know it. These daunting narratives often anticipate techno-apocalypse, global pandemics, runaway climate change and mass extinctions. Their scale can appear to dwarf the actions of individual humans, and yet this is exactly where the work of the artist is proportionally most significant. Artists write the myths that help us understand the present, and create the monuments that explain the present to the future. They sound the alarm anew when sympathetic ears have grown deaf, and most importantly, they invent hopeful futures that were previously beyond imagination. Students in this course will learn significant historical and contemporary "end times" narratives, both utopian and dystopian, as well as the cultural responses to them. We will be using these as launching points for creatively engaging with our present apocalyptic predicaments. Students will visit regional locations that provide real-world grounding for these stories. They will use joy, introspection, humor, and courage, to create works using the full range of artistic expression from the highly ephemeral to the timeless. This course may never be offered again.

60-450 Advanced DP3: Drawing

Intermittent: 10 units

Figurative art retains aspects of the 'real' world as its subject matter. It has recognizable forms; it shapes, makes likenesses, and represents. Typically, 2D figurative work creates illusionistic depth to create spaces in which narratives occur and are portrayed. Within this realm, our course is unrestrained. All of our observations are valid, stories equal, feelings freed, fears unleashed and proclamations promoted. Projects across painting and drawing are drawn from both perception and invention and include working from the live model. The class will consist of studio time, critique, readings, discussion and museum/gallery visits.

Prerequisites: 60-160 or 60-157 or 60-150

60-451 Advanced DP3: Figurative Drawing

Intermittent: 10 units

This advanced course delves deeply into the artistic representation of the human body, drawing on art historical references to contextualize our relationship with the human form. Through intensive study and practice, students will develop a nuanced understanding of how artists throughout history have interpreted the body, and how these interpretations have shaped cultural and societal perspectives. Emphasis will be placed on refining our "looking" skills, honing our ability to observe and interpret the human figure with precision and sensitivity. Students will explore a variety of techniques and approaches to figure drawing, with the goal of developing a personal style and expressive voice. Central to the course is the question: What are we trying to say with our representations of the human body? Through critical analysis and thoughtful experimentation, students will explore this question, gaining a deeper understanding of the power and significance of figurative art.

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.

Prerequisites: 60-160 or 60-157 or 60-150

Course Website: <https://sites.google.com/andrew.cmu.edu/colorcourseclaytonmerrell/home> (<https://sites.google.com/andrew.cmu.edu/colorcourseclaytonmerrell/home/>)

60-453 Advanced DP3: Painting

Fall and Spring: 10 units

This course is designed to help promote a painter's development, both conceptually and technically. It encourages students to expand their ideas through a diverse set of projects. Through research and studio experimentation, students will explore issues of scale, surface, materiality, process and performativity in painting. They will also consider notions of the "picturesque" and how non-artistic disciplines can inform painting. Lectures and assignments are designed to enrich the painter's conceptual and technical base and to promote creative growth.

Prerequisite: 60-250

60-454 Adv Studio: Small Things: Quiet interventions, Miniatures & the Power of Everyday

All Semesters: 10 units

This advanced studio class allows for the interdisciplinary exploration of historical, critical, craftbased, and conceptual issues surrounding the Small. The course will look at global and historical examples of small objects and the impulse for humans to make miniatures. It will consider site specific installations and interventions that are often not easily viewable. It is very easy for a large object, an expensive object, to make a big visual and/or social impact. What does it mean to work on a humble scale and with ephemeral and/or accessible materials? How does working small allow for generosity, play and adaptability? This is an interdisciplinary advanced studio course. Students will predominantly work in their own studios and bring their own practice/techniques and research to our conversation.

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

60-461 Advanced ETB: Experimental Capture

Intermittent: 12 units

This is an interdisciplinary studio course in expanded media practices that arise from using devices and algorithms to "capture" the world. We will explore experimental workflows, ranging from no-tech and low-tech to emerging and state-of-the-art techniques, in order to capture, model, and share new representations of people, objects, places and events. Through self-directed research projects, students will develop systems to capture a wide variety of phenomena, and creatively share the media they collect. We will cover a wide range of techniques and artistic practices that incorporate immersive, panoramic, high-speed, multispectral, and multispectral imaging; depth sensors and 3D scanners; motion capture systems for gestures of the face, body, hand, and eye; computer vision and machine learning techniques for detection, tracking, recognition and classification; and other unusual, forgotten, and nascent technologies for transducing the unseen, ephemeral, and otherwise undetectable.

60-462 Advanced DP3: Painting Matter & Substance

Intermittent: 10 units

This course will be a hands-on investigation of the material, tangible, and physical aspects of painting. Students will learn how to make and use various paints, supports and grounds including oil paint, egg tempera, encaustic, watercolor/gouache, distemper, casein and fresco (in addition to other materials based on student interest). The working properties of various additives to and combinations of these media will be examined and experimented with. Technical issues affecting longevity will be addressed and experimentation will be encouraged. Students will investigate the work of other artists with a forensic "How did they do that?" approach. The second half of the semester will be devoted to studio work focusing on the ways in which each student's personal vision can be embodied and expanded in one or more of the above media.

Prerequisites: 60-150 and 60-250

60-464 Advanced DP3: Expanding the Graphic Novel

Intermittent: 10 units

In this course, students will critically and creatively engage with the medium of comics to learn how to better communicate their ideas in this format as well as challenge its boundaries. A substantial portion of the course will focus on familiarizing students with the basics of storytelling in a sequential narrative format and creating opportunities for students to discover, hone and explore their own voice and style. In addition to creating new work, students will also explore the history of comics and the origins of the "modern" graphic novel. Students will also be exposed to both graphic and non-graphic artists whose works has challenged and redefined the genre. We will explore these artists in order to understand how our own work borrows from and draws upon a rich lineage. Students will also be expected to think beyond the commonly accepted notions of comics and to question the relevancy of their work in this medium. Finally, each student will produce a new body of work that will culminate in the production of a 4-5 "page" "sequential" narrative.

60-466 Advanced DP3: Publishing as Artistic Practice

Intermittent: 10 units

This course will look at the history of artist multiples from artist books and zines, mail and subscription based practices, and editioned objects. Students will be introduced to techniques in traditional bookbinding, zine making as well as design and layout an artist book for mass publication. Studio work will focus on materials and processes that can be found and done at home as well as designing projects that utilize print-on-demand product services. We will be looking at contemporary artist's multiples that exist over a wide range of media, from fine art prints, sculptural and digital editions, and even performance and participatory work conceptualized as a multiple. We will discuss the economy and business structure behind independent publishing, looking into contemporary artists who are running their own presses, an emergence of art book and zine fairs, and envisioning alternative distribution opportunities for our artworks.

Prerequisites: 60-258 or 60-251

60-468 Advanced DP3: Print Media - Sculpture, Installation Screen Intensive

Intermittent: 10 units

This advanced print media course is a screen-printing intensive that moves print out of editioned works on paper. Students will utilize the multiple to create immersive wall installations, participatory social sculpture, objects that act as interventions, and hand-printed yardage that can be used in soft sculpture and/or wearable forms. Students will challenge their screen-printing techniques and the scale and reach of their printed matter. Projects will concern the role of ornamental design within socio-political-cultural frameworks and the role of "hand-made" within exchange and gift economies. Projects will problematize artworks in relationship to the human body: as wearer, as laborer, and as consumer.

60-470 Advanced DP3: Painting The Unconscious

Intermittent: 10 units

This course explores the threshold between the seen and unseen using a broad range of painting styles, techniques, and materials to explore the unconscious mind. Drawing upon a range of spiritual and occult practices, including tarot, surrealist games, automatic drawing, and color meditations, this class offers students the opportunity to explore processes that unlock the imaginative potential of the unconscious and adapt them to painting. Through a series of readings, presentations, field trips, and critiques, the class will gain knowledge of the practices and histories behind the unconscious in art and learn how to harness 'chance' more intentionally into their painting practice. This is a studio-based course in which emphasis is placed on independent research and studio productivity. We will discuss artists like Hilma af Klint, Remedios Varo, Leonara Carrington, Wassily Kandinsky, Austin Osman Spare, Ithell Colquhoun, Elijah Burgher, Xul Solar, Ghulam Rasool Santosh, Jesse Bransford, Elizabeth Insignia, Hilma's Ghost, Myrlande Constant, and Betye Saar as well as artistic movements including Symbolism, Surrealism, Transcendental Painting Group, and Neo Tantra Painting.

60-471 Advanced DP3: Photography/Print Workshop

Intermittent: 10 units

In this course in Photography and Print, students will develop semester-long individual projects in contemporary photography, printmaking, artists' books and/or multiples. Students will work in photography and amp;/ or print media, with an invitation to use either studio-based processes (intaglio, lithography, screenprint, photography lab) or work with hand-printing, digital or nontraditional approaches (monotype, stamps, stencils, rubbings, relief, digital photography). This will culminate in a capstone book, supported by the School of Art. Readings, discussion, critique, and visiting artists will enhance our conversation and research. As a workshop, this course is for students who are ready to explore their work more deeply and create ambitious self-driven projects.

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.

60-474 Advanced DP3: Photobook

Intermittent: 10 units

In this course, we will create books that explore visual narrative, sequencing, and sculptural form through the medium of photography. Additionally, we will consider the roles of image and text as well as design, editing, printing and binding. Our work will be informed by the history photobooks and artists' books, including by Ed Ruscha, Sophie Calle, Andres Gonzalez, Tommy Kha and Rinko Kawauchi. Lectures and field trips to book collections will guide our work too.

60-475 Advanced DP3: Open Print

Intermittent: 10 units

This advanced Print Media course focuses on student-driven development of a studio practice focused on contemporary print, multiples and distributed art. In this class, individuals will continue to build on technical skills and concepts, and the interdisciplinary applications of both, through self-directed, individual approaches. This course is for advanced students of art, ready to focus on larger-scaled, conceptually and formally ambitious projects that are formed from long-term investigations. Prerequisites: 60-473 or 60-475 or 60-474 or 60-476 or 60-468

60-476 Advanced DP3: Serigraphy (Screenprinting)

Intermittent: 10 units

This course is a comprehensive and intensive study of Serigraphy (screenprinting), one of the most versatile and contemporary of printmaking techniques. The course is focused upon the mastery of this process. Students will explore multiple methods of image making (from hand-drawn to digital imaging) and will be introduced to CMYK printing. The emphasis of this course is on artistic work on paper, but will also be exposed to the ways that screenprint can work across a wide range of different media: from 2D (paper, canvas, cloth) to 3D (book forms, sculpture, installations) and utilizing printed multiples in participatory and exchange based artworks.

60-478 Advanced DP3: Photography Stands Up

Intermittent: 10 units

The value of a photograph is most often centered on the work it takes to construct an image but the work of photography does not stop there - printing out an image may also be the first step in building something else entirely. Photography Stands Up will treat the photographic print as a necessity, explore the photographic print as an object and most importantly consider the photographic print as a starting point for creating a significant work. After the past year of remote learning this course has a clear goal of getting students out of their seats, off the computer and away from the screen. This course will demand that we be active with our bodies and driven both conceptually and materially with an emphasis on experimentation as we vacillate between both digital and analog methodologies. We will explore printed photographs as objects that we may bend, fold, scratch, weave, dye, reconfigure and incorporate into future photographs. This course will introduce students to non-traditional methods of working in the Black and White Darkroom and will require students to print their images out on a regular basis using both the darkroom and digital print facilities. We will also explore the vast resource of the shooting studio, which we will use collectively during in class workshops - focused on putting our theories into practice. Participation in this course will grant students access to a digital camera and tripod to use for the duration of the semester and this tool will be a key component to in class workshops.

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 ???

60-491 Advanced CP/ETB: Art AFTER The End Of The World

All Semesters: 10 units

Taught by Prof. Rich Pell (School of Art BSA Faculty Advisor and founder of the Center for PostNatural History). This course will take students on a deep dive into our mythological, scientific and artistic understanding of world-changing catastrophic events, from the earliest human stories up to the present moment. Film and writings, fiction and non-fiction will inform a critical conversation about the important role of artists in these times. Contemporary research in science and critical theory will inform the development of unique self-defined creative practices that embrace our most durable human qualities of joy, empathy, humor, and courage. Field-trips (virtual and/or RL) will fuel group discussion and the development of new artistic works open to any media.

60-493 Advanced CP: Out There - Post-Studio Practice

Intermittent: 10 units

Since the Dada movement began to erode the importance of institutional validation, artists have consciously chosen to operate outside of a studio context in a variety of ways. The eighties saw the emergence of movements and artist-run organizations intent on removing institutional barriers for art practice, enabling performance, civic engagement, social and political intervention, and myriad other approaches to feed the dialogues surrounding art and culture. This class will consider the philosophical, ideological, aesthetic, and political motivations, which influence such artists and organizations and will look at writers who have provided a corresponding critical framework. Students will engage in research and reading to develop their own project(s), using the class as a space for dialog and development, and the time outside of the class as the space for execution and manifestation.

60-497 Advanced Studio: Science Fiction

Intermittent: 10 units

"There is nothing new under the sun, but there are new suns." - Octavia E. Butler "As the industrialized world undergoes daily transformations through the application of techno science to every aspect of life, science fiction has become an essential mode of imagining the horizons of possibility." - Istvan Csicsery-Ronay In this course students explore science fiction as expressed across media including film, television, music, contemporary art, literature, comics and games. Students will work in the medium(s) of their choice using the tactics of science fiction to investigate themes and topics including but not limited to: Utopia/Dystopia, Robots and A.I., Extraterrestrial Life, Speculative Design, Afrofuturism, Genomics, Transhumanism, Indigenous Futures, Posthumanism, Ecology, Climate Change, Space Travel, Time Travel and Alternative Histories.

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 Academic Affairs of the School of Art. Prerequisite: Art Junior/Senior status and by instructor permission.

60-590 Internship

All Semesters

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.