

Fall 2020 Elective Course Descriptions as 08/03/2020

ARCHITECTURE

(Subject to change - Please check course search for up-to-date information)

****NEW COURSE****

ARCH 711-001: Topics in Arch Theory I: Contemporary Architectural Discourse: Race, Environment, Gender

Daniel Barber

Monday, 9am-12pm

ONLINE

Architecture, as a profession and as an academic discipline, is undergoing an unprecedented transformation. Ongoing pressures related to increased climatic instability, alongside the intensified recognition of inequities resulting from both the #metoo movement and Black Lives Matter, have all shaken the foundations of the field. They are opening pathways to new ways of considering the role of architecture in the public sphere, while also encouraging architects and others to reimagine the contours of the future we might build. Our *aspirations* are changing, and the contemporary architectural discourse reflects this.

The course has two ambitions: to examine and engage these righteous transformations through a review of recent literature in the field, and to consider the role of scholarship in shepherding these transformations into the profession and discipline. A corollary ambition: to provide a forum for PhD students and MArchs to consider their research interests and examine their scholarly methods in the context of these transformations. Guests - authors and editors of the books being read - will join the seminar discussion most weeks, to give us insight into their process and ambitions.

ARCH 711-004: Topics in Arch Theory I: Modern Architecture in Japan – Culture, Place, Tectonics

Ariel Genadt

Thursday 9am-12:00pm

ONLINE

This seminar explores the diversity of forms and meanings that architecture took on in Japan since its industrialization in the 19th century. Through this lens, it poses wider questions on the capacity of construction, materials and their assembly to express and represent cultural, aesthetic, climatic and social concerns. Rather than an exhaustive survey, the course demonstrates salient topics in Japan's recent architectural history, as a mirror of parallel practices in the world. It examines drawings, images, texts and films about architects whose work and words were emblematic of these topics, including: the role of technology in construction and cultural expression; tensions between tradition and creation; resistance, weakness and resilience in face of environmental forces; tectonic expression in relation to place; the concepts of dematerialization and abstraction in architectural expression.

****NEW COURSE****

ARCH 711-006: Topics in Arch Theory I: Rebellious Architecture: On Social Movements for Spatial Justice

Eduardo Rega Calvo

Monday, 9am-12pm

ONLINE

Contact department for more information.

ARCH 719: Archigram and Its Legacy: London, A Technotopia

Annette Fierro

Wednesday, 9am-12pm

HYBRID

Acknowledging the ubiquitous proliferation of "Hi-Tech" architecture in contemporary London, this research seminar examines the scope of technology as it emerges and re-emerges in the work of various architects currently dominating the city. This scope includes the last strains of post-war urbanism which spawned a legacy of radical architecture directly contributing to the Hi-Tech; a particular focus of the course will be the contributing and contrasting influence provided by the counter-cultural groups of the 60's- Archigram, Superstudio, the Metabolists and others. Using the premise of Archigram's idea of infrastructure, both literal and of event, the course will attempt to discover relational networks between works of the present day (Rogers, Foster, Grimshaw, etc.). As this work practices

upon and within public space, an understanding of the contribution of technology to urban theatricality will evolve which is relevant to contemporary spheres of technological design practices. Students will be required to produce and present a term research paper.

ARCH 721: Designing Smart Objects for Play and Learning

Assaf Eshet

Tuesday, 3pm-6pm

ONLINE

Today's children enjoy a wide array of play experiences, with stories, learning, characters and games that exist as physical stand-alone objects or toys enhanced with electronics or software. In this course, students will explore the domain of play and learning in order to develop original proposals for new product experiences that are at once tangible, immersive and dynamic. They will conduct research into education and psychology while also gaining hands-on exposure to new product manifestations in a variety of forms, both physical and digital. Students will be challenged to work in teams to explore concepts, share research and build prototypes of their experiences in the form of static objects that may have accompanying electronic devices or software. Final design proposals will consider future distribution models for product experiences such as 3D printing, virtual reality and software- hardware integration. Instruction will be part seminar and part workshop, providing research guidance and encouraging connections will subject matter experts throughout the Penn campus.

ARCH 724: Technology in Design: Immersive Kinematics/Physical Computing: Body As Site

Simon Kim & Mark Yim

Wednesday, 9am-12pm

ONLINE

The aim of this course is to understand the new medium of architecture within the format of a research seminar. The subject matter of new media is to be examined and placed in a disciplinary trajectory of building designed and construction technology that adapts to material and digital discoveries. We will also build prototype with the new media, and establish a disciplinary knowledge for ourselves. The seminar is interested in testing the architecture-machine relationship, moving away from architecture that looks like machines into architecture that behaves like machines: An intelligence (based on the conceptual premise of a project and in the design of a system), as part of a process (related to the generative real of architecture) and as the object itself and its embedded intelligence.

ARCH 725: Design Thinking

Sarah Rottenberg

Thursday, 12pm-3pm

ONLINE

Creating new product concepts was once a specialized pursuit exclusively performed by design professionals in isolation from the rest of an organization. Today's products are developed in a holistic process involving a collaboration among many disciplines. Design thinking — incorporating processes, approaches and working methods from traditional designers' toolkits — has become a way of generating innovative ideas to challenging problems and refining those ideas. Rapid prototyping techniques, affordable and accessible prototyping platforms, and an iterative mindset have enabled people to more reliably translate those ideas into implementable solutions. In this course, students will be exposed to these practices and learn how to engage in a human-centered design process.

ARCH 731: Experiments in Structure

Mohamad Al Khayer

Thursday, 9am-12pm

HYBRID

This course studies the relationships between geometric space and those structural systems that amplify tension. Experiments using the hand (touch and force) in coordination with the eye (sight and geometry) will be done during the construction and observation of physical models. Verbal, mathematical and computer models are secondary to the reality of the physical model. However these models will be used to give dimension and document the experiments. Team reports will serve as interim and final examinations. In typology, masonry structures in compression (e.g., vault and dome) correlate with "Classical" space, and steel or reinforced concrete structures in flexure (e.g., frame, slab and column) with "Modernist" space. We seek the spatial correlates to tensile systems of both textiles (woven or braided fabrics where both warp and weft are tensile), and baskets (where the warp is tensile and the weft is compressive). In addition to the experiments, we will examine Le Ricolais' structural models held by the Architectural Archives.

ARCH 732: Technology Designated Elective: Daylighting

Jessica Zofchak

Tuesday, 6pm-9pm

ONLINE

This course aims to introduce fundamental daylighting concepts and tools to analyze daylighting design. The wide range of topics to be studied includes site planning, building envelope and shading optimization, passive solar design, daylight delivery methods, daylight analysis structure and results interpretation, and a brief daylighting and lighting design integration.

ARCH 732: Technology Designated Elective: Material and Structural Intelligence

Sameer Kumar

Friday, 9am-12pm

ONLINE

The semester long project will involve a gradual development of architectural ideas that are intimately informed by and centered on knowledge of Structure and Materiality. Employing both physical and digital simulations, the students will synthesize knowledge acquired in previous courses in structures, materials, and construction methods to develop architectural solutions within a carefully selected set of determinants.

ARCH 732: Technology Designated Elective: Geometric Structural Design

Masoud Akbarzadeh

Thursday, 2pm-5pm

ONLINE

Geometric structural design provides a comprehensive introduction to novel geometric methods of structural design based on 2D and 3D graphical statics. The primary emphasis of the course will be on developing a general understanding of the relationship between structural forms in equilibrium and the geometric representation of their internal and external forces. This link is the main apparatus for designing provocative structural forms using only geometric techniques rather than complicated algebraic/numerical methods. Moreover, special consideration will be given to materialization of the structural geometry and the proper fabrication techniques to construct the complex geometry of the structure.

Note that this course is based on ongoing research in the field of 3D graphical statics, and therefore provides students with the opportunity to directly contribute to the current research in geometric methods of structural design. Familiarity with a parametric software is required, and code-writing ability is an asset. Particular attention will be given to structural model making and careful structural drawings. The outcomes of the course will become a primary collection of Polyhedral Structures Laboratory. Also, a unique summer research fellowship will be available for highly motivated students to build a one-to-one scale structural prototype based on the forms developed in the class.

ARCH 732: Technology Designated Elective: Matter and Energy

Franca Trubiano

Thursday, 9am-12pm

ONLINE

This seminar/workshop promotes architectural innovation in the field of construction technology. Matter + Energy are the two fields of enquiry which guide and structure the course's reading seminars and prototype workshops. Students will design and fabricate building related prototypes that productively respond to a well-documented and socially relevant environmental need. The creative and critical integration of Matter + Energy is the ambition of each prototype. Materials such as films, composites and plastic/polymers will be central to the investigation, as will the energy related topics of thermodynamics, light/heat studies and renewable energies. Invited design and building industry professionals will advise student teams and offer critical reviews of their process during the semester. Lastly, students will be introduced to performance design metrics used in evaluating the environmental impact of their material and energy choices, be they embodied energy, carbon emissions, or Life Cycle Assessments.

More specifically, the seminar is dedicated to the development of a body of knowledge aligned with socially relevant ecological design principles. Students are encouraged to design and prototype innovative solutions for housing the world's homeless. The physical constraints of the art of building are essential to the exercise when the construction of new technologies is positioned between the practice points of energy + matter; power and materials. Given the world's energy resources are limited and fair acquisition is

impossible given corporate and governmental power dynamics, the design of basic shelter for hundreds of millions of homeless must address this basic lack of fuel. Seeking inventive applications in renewable energy in the design of minimum existence housing is one goal of this seminar; the other, the innovative and intelligent application of materials to the same end. Students working in teams will develop their own Energy + Matter equation, actualizing a world of ideas and fabrication practices which give rise to socially relevant zero energy building prototypes.

ARCH 732: Matter, Making, and Testing: Designing with Next Generation Precast Concrete

Richard Garber

Wednesday, 9am-12pm

HYBRID

This seminar will focus on precast concrete and specifically its materiality – how it is manufactured and the logistics of its assembly - and its cultural affects through both traditional uses within the urban environment as well as new approaches to building typologies such as housing. Through a strategic partnership with Northeast Precast (NEP), based in Millville, NJ, students enrolled in the seminar will gain access to places where precast concrete is made, formed, and put into action. In addition to readings and case studies via traditional seminar delivery, students will have access to Northeast Precast’s state-of-the-art facility where they will learn about the precast concrete manufacturing process and produce panel prototypes for wall assemblies that respond to structural, thermal, and water proofing performance. Students will develop a delivery workflow utilizing digital tools to communicate with and transmit panel, assembly and formwork concepts to NEP staff, fostering a collaboration opportunity for students that is not regularly experienced in architecture school.

ARCH 737: Semi-Fictitious Realms

Jeffrey Anderson

Thursday, 9am-12pm

ONLINE

The pursuit of immersive digital experiences has long been a goal of the computing industry. Early wearable displays designed in the 1960s depicted simple three-dimensional graphics in ways that had never been seen before. Through trial and error, digital pioneers reframed the relationship between user and machine, and over the last five decades, have made strides that advanced both the input and output mechanisms we are so comfortable with today. As a field, architecture has been reliant on these advancements to design and document buildings, but these tools still leave the architect removed from the physicality of the design, with their work depicted as 2D lines or 3D planes alone.

This course will study the evolutionary advancements made that now allow us to fully inhabit digital worlds through Virtual Reality. Using the HTC Vive and the Unity video game engine, students will generate immersive, photo-realistic models of unbuilt architectural works and explore digital/physical interactivity. From the terraces of Paul Rudolph's Lower Manhattan Expressway to Boullée's Cenotaph for Newton, the goal of this course is to breathe new life into places and spaces that have, until this time, never been built or occupied.

ARCH 739: New Approaches to an Architecture of Health

Mikael Avery

Tuesday, 1pm-4pm

HYBRID

Health care is taking on a new role in our society - with a refocusing from episodic care for those who are ill or symptomatic to providing life-long care geared towards maintaining wellness. These changes are evident across numerous areas of design, from wearable technologies that track and analyze, to large scale building initiatives that aim to create healthier environments and improve lives through strategic planning initiatives.

A concrete, physical representation of this paradigm shift can be found within the hospital building itself and in the new manner in which hospitals are looking to serve their patients and care for their clinicians. Simultaneously both public and private spaces, hospitals are complex systems in which sickness, health, hospitality, technology, emergency, and community share space and compete for resource.

In order to frame our present day understanding of the role of architecture (and design) in fostering health for individuals and within communities, this seminar will begin with an exploration of the historical and contemporary perspectives on the role of the architect and built environment on health. (Parallels between design and our ever-changing understanding of the biological, social, and environmental causes of sickness and disease will also be explored.) During this conversation, students will read articles and study recently constructed projects in order to examine the ways in which the architects approached these topics through built form. Following from this foundation, students will craft arguments for a new approach to the individual, the community, health, and architecture through a written response and architecturally designed scenario that argues for their perspective on how architecture can and should shape the health of those who inhabit it.

ARCH 743: Form and Algorithm

Ezio Blasetti

Monday, 9am-12pm

ONLINE

The critical parameter will be to develop the potential beyond finite forms of explicit and parametric modeling towards non-linear algorithmic processes. We will seek novel patterns of organization, structure, and articulation as architectural expressions within the emergent properties of feedback loops and rule based systems. This seminar will accommodate both introductory and advanced levels. No previous scripting experience is necessary. It will consist of a series of introductory sessions, obligatory intensive workshops, lectures followed by suggested readings, and will gradually focus on individual projects. Students will be encouraged to investigate the limits of algorithmic design both theoretically and in practice through a scripting environment.

ARCH 749: Indeterminate Delineations

Maya Alam

Tuesday, 9am-12pm

ONLINE

This representation and design seminar will focus on new media applications, its effects on our perception and understanding of space. We will focus on the history and application of contemporary imaging technologies through the lens of the point as a visualization and abstraction device.

Architecture has always been closely entangled with modes of vision. Devices ranging from Dürer's perspective machine to the photographic eye have strongly shaped the way we think and design the built environment of our cities: it is the technologies through which we see and experience the built environment that define the way we construct it. This class leverages the bi-product of scanning technologies - point clouds and image making - to explore inclusive modes of delineations: a visual sensibility to engage with the multi-faceted nature of the built environment.

Points play an important role in the history of visuality: from Impressionism and Pointillism as elements to investigate the mechanics of vision, to the post war period at the Berlin School of Gestalt Psychology as graphic elements to understand part to whole relationships. Aiming to continue this investigation, this class will focus on digital and physical points as anchors to tie modes of vision with modes of construction.

ARCH 750: Parafictional Realities

Kutan Ayata

Friday, 9am-12pm

ONLINE

This representation/design seminar explores the aesthetics of estrangement in realism through various mediums. The reality of the discipline is that architecture is a post-medium effort. Drawings, Renderings, Models, Prototypes, Computations, Simulations, Texts, and Buildings are all put forward by architects as a speculative proposal for the reality of the future. Students will explore the reconfiguration of a "found object" in multiple mediums and represent parafictional scenarios in various techniques of realism. At a time when rendering engines enable the production of hyper-realistic images within the discipline without any critical representational agenda, it has become ever more imperative to rigorously speculate on realism.

ARCH 751: Ecology, Technology, and Design

William Braham

Thursday, 9am-12pm

HYBRID

This course will examine the ecological nature of design at a range of scales, from the most intimate aspects of product design to the largest infrastructures, from the use of water in bathroom to the flow of traffic on the highway. It is a first principle of ecological design that everything is connected, and that activities at one scale can have quite different effects at other scales, so the immediate goal of the course will be to identify useful and characteristic modes of analyzing the systematic, ecological nature of design work, from the concept of the ecological footprint to market share. The course will also draw on the history and philosophy of technology to understand the particular intensity of contemporary society, which is now characterized by the powerful concept of the complex, self-regulating system. The system has become both the dominant mode of explanation and the first principle of design and organization.

ARCH 765: Project Management

Charles Capaldi

Friday, 9am-12pm

ONLINE

ARCH 765 is an introduction to construction management, project management and various construction project delivery systems. In the study of construction delivery systems, we will examine the players, relationships and the advantages and disadvantages of different contractual and practical relationships, both on the construction site and at the tops of the various "paper piles". Exercises and lectures will focus on developing perspectives into the various roles, needs and expectations of the many parties involved in a construction project and the management skills and techniques which help to bring a project to a successful conclusion.

ARCH 768: Real Estate Development

Alan Feldman

Monday, 3pm-6pm

ONLINE

This course evaluates "ground-up" development as well as re-hab, re-development, and acquisition investments. We examine raw and developed land and the similarities and differences of traditional real estate product types including office, R & D, retail, warehouses, single family and multi-family residential, mixed use, and land as well as "specialty" uses like golf courses, assisted living, and fractional share ownership. Emphasis is on concise analysis and decision making. We discuss the development process with topics including market analysis, site acquisition, due diligence, zoning, entitlements, approvals, site planning, building design, construction, financing, leasing, and ongoing management and disposition. Special topics like workouts and running a development company are also discussed. Course lessons apply to all markets but the class discusses U.S. markets only. Throughout the course, we focus on risk management and leadership issues. Numerous guest lecturers who are leaders in the real estate industry participate in the learning process. Format: predominately case analysis and discussion, some lectures, project visits.

ARCH 811: Theories of Architecture: Architecture's Cultural Performance: The Façade

David Leatherbarrow

Tuesday, 2pm-5pm

ONLINE

This course will reconsider these alternatives and ask again about the interrelationships between topics of design that seem to be categorically distinct: the project's functionality and its style, its provision of settings that allow the enactment of practical purposes and its contribution to the image and appearance of our landscapes and cities. Our concentration will be at once historical and thematic. We will study and reconsider buildings from the twentieth century and we will ask questions that resonate through the past several decades into the present, questions about the building (its materials, construction, and figuration) as well as the process of design (description, projection, and discovery). Throughout the course we will return to the building's most visible and articulate surface: the façade.

CITY PLANNING

CPLN 572: Modern Architectural Theory

Lin & Brownlee

Thursday, 1:30-4:30pm

ONLINE

A survey of architectural theory from the mid-eighteenth century to the present. The discussion of original writings will be emphasized.

CPLN 630: Innovations in Growth Management

Tom Daniels

Tuesday and Thursday, 1pm-3pm

ONLINE

The US population is expected to grow by more than 85 million from now to 2050. This course evaluates the tools and techniques for managing growth in America, especially to control sprawl in metropolitan regions. The course analyzes the form and functions of the central cities, suburbs, edge cities, ex-urbs, and megaregions. Federal, state, and local programs that influence metro change are evaluated. Regional planning approaches are analyzed in case studies.

CPLN 635: Water Policy

Allison Lassiter

Tuesday and Thursday, 9am-1030am

ONLINE

Urbanization, climate change, aging infrastructure, pollution, and institutional barriers are all contributing to urban water management crises in cities around the globe. This course examines the systems and policies that comprise urban water, while looking for integrative, flexible solutions. The course proceeds in three parts. We first review water system fundamentals, ensuring a basic understanding of hydrology and traditional infrastructure. Then, we examine key concepts and arguments in water management today. We emphasize integrated water resource management, supply-side and demand-side management strategies, and water portfolios. Finally, we focus on water management challenges and solutions in selected cities around the globe.

FINE ARTS

DSGN 506: Design 21

Orkan Telhan

Tuesday, 1:30pm - 4:30pm

HYBRID

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

DSGN 520: Pixel to Print

Kayla Romberger

Monday and Wednesday, 10:00am – 1:00pm

HYBRID

This studio course introduces students to the world of print media and circulation through techniques in Risograph (a high-speed digital printing system developed in Japan in the 1980s), xerography, and letterpress, focusing particularly on the format of posters and artists'

ephemera. Beginning with the Adobe Creative Suite, students will create their own broadsides, flyers, announcement cards, and print-based installations throughout the course, exploring ways in which artists and designers make use of the printed form to disseminate information; initiate happenings; advertise events; or foment change. Students will learn about some of the most significant producers working within this realm--from Dada to punk bands in the '70s to contemporary hybrid publishing collectives--and develop skills in page layout, typography, and design; digital to analog pre-press and post-print production methods; and mechanized and hand-pulled press operations. The course includes a field trip to NYC.

FNAR 523: Drawing I

Section 401 – Kaitlin Pomerantz– Monday and Wednesday, 5:00pm – 8:00pm

Section 402 – Erlin Geffrard – Monday and Wednesday, 2:00pm – 5:00pm

Section 403 – Staff – Monday and Wednesday, 10:00am – 1:00pm

Section 404 – Roderick Jones – Tuesday and Thursday, 1:30pm – 4:30pm

Section 405 – Alexis Granwell – Tuesday and Thursday, 5:00pm – 8:30pm

HYBRID

This course is designed to develop visual awareness and perceptual acuity through the process of drawing. Students learn to sharpen perceptual skills through observational drawing, and to explore the expressive potential of drawing. A variety of problems and media will be presented in order to familiarize students with various methods of working and ways of communicating ideas visually. Subject matter will include object study, still life, interior and exterior space, self-portrait and the figure. Different techniques and materials (charcoal, graphite, ink, collage) are explored in order to understand the relationship between means, material and concept. Critical thinking skills are developed through frequent class critiques and through the presentation of and research into historical and contemporary precedent in drawing. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 524: Drawing Investigations

Ivanco Talevski

Monday and Wednesday, 10:00am – 1:00pm

HYBRID

Drawing is a fundamental means of visualization and a hub for thinking, constructing, and engaging in a wide variety of creative activities and problem-solving. This studio class explores drawing in both its traditional and contemporary forms. The projects are designed to help students in all disciplines find ways express and clarify their ideas through the process of drawing. The semester begins with the refinement of perceptual skills acquired in Drawing I, while encouraging experimentation through the introduction of color, abstract agendas, conceptual problem solving, and collaborative exercises, as well as new materials, techniques and large format drawings. Particular attention is given to ways to conduct visual research in the development of personal imagery. Assignments are thematic or conceptually based with ample opportunity for individual approaches to media, subject, scale and process. The goal is to strengthen facility, develop clarity in intent and expand expression. Attention is paid to the development of perceptual sensitivity, methods of imagine construction, and the processes of synthesis and transformation in order to communicate ideas through visual means. Recommended for students in all areas.

FNAR 525: Figure Painting

Jotham Malave-Maldonado

Tuesday and Thursday, 1:30pm – 4:30pm

HYBRID

Beyond the introduction to technique and materials this course will emphasis the figure in historical & contemporary painting. This course will be based in perception, working from the model and move through modernism and toward varying approaches to the figure. Further investigation about the language of color through color theory will be covered. Drawing 1 pre-requisite, Painting 1 pre-requisite recommended but not mandatory.

FNAR 530: Public Art and Issues of Spatial Production

Ken Lum

Monday and Wednesday, 10:00am – 11:30am

HYBRID

The French social philosopher Michel de Certeau upset the common understanding of the relationship between space and place by elevating space as practice place. By this, he meant that place is but a set of geo-physical particularities that has no dynamic meaning unless activated through social engagement so that space is produced. Spatial practice is a key concept in the modern understanding of the city as a society of abstract space, one in which the problem of human alienation is riven with the logic of spatial spectacularization. Public Art is often employed to address or mollify such urban problems through concepts of historical reconstruction or institutional critique, including possibly testing the limits of public expression. Historical markers play a somewhat different role by calling attention to lost or negative histories, albeit most often vetted through the language of tourism factoids. This course will examine the discursive issues at play in respect to art and markers, particularly for Philadelphia. Additionally, important public art works from around the world will be examined. The course will also include the occasional visit of several key works downtown in which the question of what can and cannot be said will be pondered.

FNAR 531: Painting Practices

Section 401 – Anthony Bowers – Monday and Wednesday, 5:00pm – 8:00pm

Section 402 – Staff – Tuesday and Thursday, 9:00am – 12:00pm

HYBRID

Painting practices is an introduction to the methods and materials of oil painting. This course begins with an investigation of color and color relationships. The beginning of the semester will cover technical issues and develop the student's ability to create a convincing sense of form in space using mass, color, light and composition. The majority of work is from direct observation including object study, still life, landscape, interior and exterior space and the self portrait. Class problems advance sequentially with attention paid to perceptual clarity, the selection and development of imagery, the process of synthesis and translation, color, structure and composition, content and personal expression. Students will become familiar with contemporary and art historical precedent in order to familiarize them with the history of visual ideas and find appropriate solutions to their painting problems.

FNAR 532 & 534: Painting Studio

Jackie Tileston

Monday and Wednesday, 2:00pm – 5:00pm

HYBRID

Painting Studio IV focuses on continuing the student's exploration of techniques, problems, and poetics of painting, the nuances of the painting language, and the development of a personal direction. While students may choose to work on assigned projects (either in consultation with the instructor or following the projects that the Painting II/III students may be involved in), the emphasis is on the investigation of the student's own sensibility. Students will be expected to engage in ongoing critical analysis of their own practices and assumptions.

DSGN 536 Digital Figure Modeling

Scott White

Friday, 10:00am – 1:00pm

HYBRID

This course introduces methods of modeling, texturing, and rendering human and animal figures. Students will study anatomical bone and muscle structures, and then employ this knowledge as they develop polygonal models for real-time 3D simulations or gaming environments, high-resolution renderings, and rapid prototyping.

DSGN 538: Open Book

Sharka Hyland

Monday, 5:00pm – 8:00pm

HYBRID

"Open Book" will focus on visual communication of information. It will address two methods of inquiry and the corresponding means of visual representation: the objective, will structured research of facts and images, and the creative process of their subjective evaluation and restatement. Students will propose a topic based on their area of interest and engage in a focused, semester-long exploration, which they will present in the form of a designed and printed book.

FNAR 541: Hand-Drawn Computer Animation

Joshua Mosley

Tuesday and Thursday, 9:00am – 12:00pm

HYBRID

Using software tools designed for hand-drawn animation, students will develop animation skills applicable to all forms of animation. In this course students will learn to draw with a sense of urgency and purpose as they represent motion and drama in a series of frames. Through careful study of natural movements, precedents in the history of animation, and through the completion of a series of animation projects students will develop strategies for representing naturalistic movement, inventing meaningful transformations of form, and storytelling.

FNAR 545: Sculpture Practices

Section 401 – William Udell – Tuesday and Thursday, 9:00am – 12:00pm

Section 402 – Oren Pinhassi – Monday and Wednesday, 2:00pm – 5:00pm

HYBRID

As an introduction to traditional and contemporary three-dimensional practice, this course is concerned with the concepts and methodologies surrounding three-dimensional art making in our time. Students experiment with a variety of modes of production, and develop some of the fundamental techniques used in sculpture. In addition to these investigations, assignments relative to the history and social impact of these practices are reinforced through readings and group discussion. Processes covered include use of the Fab Lab, wood construction, clay, paper, mixed media, and more. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 546: Sculpture II Object and Installation

Michelle Lopez

Tuesday and Thursday, 1:30pm – 4:30pm

HYBRID

In the contemporary moment, to make sculpture is to deal with all things: microscopic and monumental, subtle and blunt, real and imagined; it is an attempt at understanding three-dimensionality and dealing with questions of space. As a practice, sculptural approaches can be applied to all means of making, ranging from drawing to performance to video. In Sculpture II, students will work through prompts that develop and expand upon a technical fabrication skillset - woodworking, metalworking, mold making, casting, armature construction, surfacing, and assemblage - while also developing and expanding upon a conceptual framework and language surrounding sculpture through readings, group discussions, writings, film screenings, gallery visits, and group critiques. The course will begin with guided assignments to expose students to the expanded field of sculpture and as the semester progresses, will evolve into each student creating a self-directed and comprehensive body of work. We will consider fundamental tenets of sculpture - site specificity, materiality, installation - while also fostering each student's approach to material, technique, content, source, and context. As a practice that contends with space, sculpture demands collaboration both practically and conceptually. The community in a shared making space is not only for safe making practices but is also for sharing ideas, concerns, and questions; each student will be a resource for one another. The goal of this course is to leave not only with a comprehensive technical and conceptual skillset, but also with a sensitivity towards three-dimensionality and a cohort of peers with whom a critical language surrounding sculpture has been developed.

FNAR 550: Intro to Printmaking

Joshua Zerangue

Monday and Wednesday, 5:00pm – 8:00pm

HYBRID

The course offers an introduction to several forms of printmaking including: intaglio, screen printing, relief, and monoprinting. Through in-class demonstrations students are introduced to various approaches to making and printing in each medium. The course enhances a student's capacity for developing images through two-dimensional design and conceptual processes. Technical and conceptual skills are developed through discussions and critiques.

FNAR 552: Printmaking: Relief and Screen Printing

Roderick Jones

Tuesday and Thursday, 5:00pm– 8:00pm

HYBRID

This course is an introduction to technical skills and investigative processes in screen printing and relief and examines methods for combining digital technology with traditional print media. The course introduces students to several contemporary applications of silkscreen and relief printmaking including techniques in multi-color printing, photo-based silkscreening, digital printing, woodcut, linocut, and letterpress. Demonstrations include photo and image manipulation, color separating and output techniques, hand carving and printing, as well as drawing and collage. Both traditional and experimental approaches are explored and encouraged and technical and conceptual skills are developed through discussions and critiques.

DSGN 566: Graphic Design with Creative Technologies

Section 401 – Jiwon Woo – Tuesday, 1:00pm – 5:00pm

Section 402 – Mark Owens – Thursday, 4:30pm – 8:30pm

HYBRID

The aim of this course is to introduce students creative ways to use color, typography, and layout across materials and media, ranging from print to physical objects. Students will explore visual design through a set of assignments and projects that are geared towards exploring the role of design in visual arts, interaction design, media design and architecture. The course introduces a number of design concepts such as content organization, navigation, interaction and data-driven design and show ways to develop new design metaphors, presentation techniques, and imagery using old and new technologies. Course is structured as a combination of lectures and hands on workshops where students will have the chance to work both individually and collaboratively to realize their projects.

FNAR 567: Computer Animation

Joshua Mosley

Tuesday and Thursday, 1:30pm – 4:30pm

HYBRID

Through a series of studio projects this course introduces techniques of 2D and 3D computer animation. Emphasis is placed on time-based design and storytelling through animation performance and montage. Students will develop new sensitivities to movement, composition, cinematography, editing, sound, color and lighting.

DSGN 569: Typography

Sharka Hyland

Monday and Wednesday, 10:00am- 1:00pm

HYBRID

The study and practice and typography spans the history of individual letterforms through the typesetting of full texts. It is a complete immersion into type as an integral part of visual communication. Typesetting conventions and variables including legibility, readability, texture, color and hierarchy will be stressed, as well as a form for organizing information and expressing visual ideas. Studio work will include collecting and analyzing type, designing and original typeface, researching type history and experimenting with typographic forms.

FNAR 571: Introduction to Photography

Section 401 – Anna Neighbor – Monday, 10:00am – 1:00pm

Section 402 – Theophile Mullen – Tuesday, 1:30pm – 4:30pm

Section 403 – Karen Rodewald – Wednesday, 10:00am – 1:00pm

Section 404 – Karen Rodewald – Wednesday, 2:00pm – 5:00pm

HYBRID

This course is an introduction to the basic processes and techniques of black & white photography. Students will learn how to expose and process 35mm film, SLR camera operation, darkroom procedures & printing, basic lighting and controlled applications. It begins with an emphasis on understanding and mastering technical procedures and evolves into an investigation of the creative and expressive possibilities of making images. This is a project-based course, where students will begin to develop their personal vision, their understanding of aesthetic issues and photographic history. Assignments, ideas and important examples of contemporary art will be presented via a series of slide lectures, critiques and discussion. No previous experience necessary. 35mm SLR cameras will be available

throughout the semester for reservation and checkout from the photography equipment room. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

DSGN 580: Design Future(S)

Orkan Telhan

Monday and Wednesday, 5:00pm – 8:00pm

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

FNAR 580: Figure Drawing

Jotham Malave-Maldonado

Tuesday and Thursday, 9:00am – 12:00pm

HYBRID

Students work directly from the nude model and focus on its articulation through an understanding of anatomical structure and function. Students will investigate a broad variety of drawing techniques and materials. The model will be used as the sole element in a composition and as a contextualized element.

FNAR 615: Across Forms: Art and Writing

Sharon Hayes and Rachel Zolf

Wednesday, 2:00pm – 5:00pm

HYBRID

What if a poem spoke from inside a photograph? What if a sculpture unfurled a political manifesto? What if a story wasn't just like a dance, but was a dance-or a key component of a video, drawing, performance, or painting? In this course, artists and writers will develop new works that integrate the forms, materials, and concerns of both art and writing. Many artists employ writing in their practices, but may not look at the texts they create as writing. And many writers have practices that go beyond the page and deserve attention as art. This course will employ critique and workshop, pedagogic methodologies from art and writing respectively, to support and interrogate cross-pollination between writing and art practices. Additionally, the course will examine a field of artists and writers who are working with intersections between art and writing to create dynamic new ways of seeing, reading, and experiencing.

FNAR 622: Big Pictures: Mural Arts in Philadelphia

Jane Golden and Shira Walinsky

Monday and Wednesday, 2:00pm – 5:00pm

HYBRID

The history and practice of the contemporary mural movement couples step by step analysis of the process of designing with painting a mural. In addition students will learn to see mural art as a tool for social change. This course combines theory with practice. Students will design and paint a large outdoor mural in West Philadelphia in collaboration with Philadelphia high school students and community groups. The class is co-taught by Jane Golden, director of the Mural Arts Program in Philadelphia, and Shira Walinsky, a mural arts painter and founder of Southeast by Southeast project, a community center for Burmese refugees in South Philadelphia.

DSGN 634: Art of the Web: Interactive Concepts for Art & Design

Staff

Monday and Wednesday, 2:00pm – 5:00pm

HYBRID

Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working

knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical conceptual skills and foster creative thinking.

DSGN 635: 3-D Computer Modeling

Section 401 - Monday and Wednesday, 10:00am – 1:00pm

Section 402 - Monday and Wednesday, 3:00pm – 6:00pm

Scott White

HYBRID

Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanisms while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.

DSGN 636: Art, Design, and Digital Culture

Section 401 – Jacob Rivkin – Monday and Wednesday, 10:00am – 1:00pm

Section 402 – Jacob Rivkin – Monday and Wednesday, 2:00pm – 5:00pm

Section 403 – Christopher Lawrence – Monday and Wednesday: 5:00pm – 8:00pm

Section 404 – Staff – Tuesday and Thursday: 9:00am – 12:00pm

Section 405 – Avery Lawrence – Tuesday and Thursday: 2:30pm – 5:30pm

Section 406 – Christopher Lawrence – Tuesday and Thursday: 5:30pm – 8:30pm

HYBRID

This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today's visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over a broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 640: Digital Photography

Section 401 – Sarah Stolfa – Monday, 10:00am – 1:00pm

Section 402 – Demetrius Oliver – Monday, 2:00pm – 5:00pm

Section 403 – Demetrius Oliver – Monday, 5:00pm – 8:00pm

Section 404 – Gabriel Martinez – Tuesday, 10:00am – 1:00pm

Section 405 – Gabriel Martinez – Tuesday, 2:00pm – 5:00pm

Section 406 – Arthur Vierkant – Tuesday, 5:00pm – 8:00pm

Section 407 – Jamie Diamond – Wednesday, 1:00am – 2:00pm

Section 408 – Jamie Diamond – Wednesday, 2:00pm – 5:00pm

Section 409 – Frederick Wahl – Thursday, 10:00am – 1:00pm

Section 410 – Frederick Wahl – Thursday, 1:30pm – 4:30pm

Section 411 – Heather Phillips – Friday, 10:00am – 1:00pm

HYBRID

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

FNAR 642: Digital Photography II

Gabriel Martinez

Wednesday, 5:00pm – 8:00pm

HYBRID

In this course students will continue to develop conceptual, technical, aesthetic and formal strategies in digital photography, expanding their artistic process while refining their critical approach to researched subject matter. The class will be driven initially by a series of assignments formulated to further expose students to broad possibilities related to the medium and then they will be guided towards the evolution of a personalized body of work that is culturally, theoretically and historically informed. We will be examining key issues surrounding the digital image in contemporary society, led through a combination of class lectures, readings, group discussions, film screenings, gallery visits and class critiques. Students will further their knowledge of image control and manipulation, retouching and collage, advanced color management; become familiar with high-end camera and lighting equipment and develop professional printing skills. In addition to learning these advanced imaging practices, this course will also emphasize an investigation of critical thought surrounding contemporary visual culture and the role of digital media in the creation of art.

FNAR 648: Counter the Land

Frederick Wahl

Friday, 10:00am – 2:00pm

HYBRID

Starting with the representation of landscape in painting in the early 1800s, the course will then move through Pictorialism and the Modernist movement in photography. Revisiting the later half of the 20th century, we will begin to consider the shifting practices of landscape and the ways it has been photographically depicted up to the present. Collaborating with the Brandywine River Museum of Art in Chadds Ford, students will begin their photographic exploration with the work of Andrea Wyeth and the landscape of the Brandywine Valley. As we consider Wyeth, the images of James Welling will also be introduced. Credited for pioneering new forms of representation in photography in the 1970s, Welling also revisited the work of Wyeth from 2010-2015, and committed to a fresh (and challenging) look at tradition. Working with imagery and text, this class will also touch on conceptual art, the New Topographics, and postmodernism. Through these various concentrations, students will consider and counter the traditions that they are already familiar with, while creating work based on issues of the landscape today. Questions about meaning, politics, social critique, land rights, technology and methods of presentation will be encouraged and explored throughout the course.

FNAR 656: Monument Lab

Paul Farber

Wednesday, 2:00pm – 5:00pm

HYBRID

What makes an exceptional socially-engaged public artwork or project? For those who practice in the field, the question invites careful consideration of aesthetics, process, participation, staging, and interpretation. Across the better part of the last decade, this line of inquiry has fueled the work of Monument Lab, a public art and history studio based in Philadelphia. With deep roots and close ties to the Department of Fine Arts's Center for Public Art and Space, and methods interanimating contemporary art and pedagogy, Monument Lab works with artists, students, activists, municipal agencies, and cultural institutions on exploratory approaches to public engagement and collective memory. The Monument Lab course in Fine Arts explores the theoretical study and practical applications of public art. The course operates as a socially-engaged "civic studio" to engage case studies, debate key issues in the field, meet with artists and practitioners, conduct site and studio visits, and practice direct methods for producing individual and collaborative public projects. Focusing on the intersection of theory and practice, the praxis course highlights engaged methods piloted by Monument Lab in citywide exhibitions and special projects, especially to focus on themes and models for participation, public engagement, co-creation, curation, temporary installation, and socially engaged art-making. Each student will embark on a semester-long independent project, as well as participate in a group initiative centered on a current Monument Lab project in Philadelphia to gain experience in the field of socially-engaged public art.

FNAR 661: Video I

Section 401 – Emory Van Cleve – Monday and Wednesday, 10:00am – 1:00pm

Section 402 – Sosena Solomon – Monday and Wednesday, 2:00pm – 5:00pm

Section 403 – Sosena Solomon - Monday and Wednesday, 5:00pm – 8:00pm

Section 404 – Emory Van Cleve – Tuesday and Thursday, 9:00am – 12:00pm

Section 405 – James Maurelle – Tuesday and Thursday, 5:00pm – 8:00pm

HYBRID

In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment-based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak at length about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assigned. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 663: Documentary Video

Michael Crane

Wednesday, 2:00pm – 5:00pm

HYBRID

Documentary Video is an intensive production course involving the exploration of concepts, techniques, concerns, and aesthetics of the short form documentary. Building on camera, sound, and editing skills acquired in Video I, students will produce a portfolio of short videos and one longer project over the course of the semester using advanced level camera and sound equipment. One short presentation on a genre, technique, maker, or contemporary concern selected by the student is required.

FNAR 676: Advanced Lens Based Projects

David Hartt

Monday, 10:00am – 1:00pm

HYBRID

Advanced Lens Based Projects (ALBP) is structured to create an open environment for students to develop a series of self-determined projects using any variety of image capture technologies. Mobile devices and DSLRs have blended the function of moving and still image capture while computers have become ubiquitous as instruments of display and dissemination. This has consequently led to the increasingly collapsed boundaries of artistic mediums. ALBP is a studio class where students will explore different modes of production and address the expanding field of exhibition strategies. Additionally, the class will foster a transdisciplinary approach to critiquing work and emphasize the shared context of the works reception. Readings, screenings, discussions, and critiques make up the curriculum along with dedicated studio time. Each student is required to complete three self-determined projects using still or moving image capture technologies. Grades will be determined through participation, completion of assignments, and the students' formal and critical engagement with the technology. While the focus of this course is not technical, prior knowledge of camera functions and post-production techniques is expected.

HISTORIC PRESERVATION

HSPV 552: Building Diagnostics and Monitoring

Michael Henry

Friday, 2pm-5pm

HYBRID (Site Visits & Online)

Building diagnostics pertain to the determination of the nature of a building's condition or performance and the identification of the corresponding causative pathologies by a careful observation and investigation of its history, context and use, resulting in a formal opinion by the professional. Monitoring, a building diagnostic tool, is the consistent observation and recordation of a selected condition or attribute, by qualitative and/or quantitative measures over a period of time in order to generate useful information or data for analysis and presentation. Building diagnostics and monitoring allow the building professional to identify the causes and enabling factors of past or potential pathologies in a building and building systems, thus informing the development appropriate interventions or corrective measures. In the case of heritage buildings, the process informs the selection of interventions that satisfy the stewardship goals for the cultural resource. In the case of recently constructed buildings, the process informs the identification of envelope and systems interventions for improved performance and energy efficiency.

HSPV 572: Preservation Through Public Policy

David Hollenberg

Friday, 9am-12pm

ONLINE

This course explores the intersection between historic preservation, design and public policy, as it exists and as it is evolving. That exploration is based on the recognition that a challenging and challenged network of law and policy at the federal, state and local level has direct and profound impact on the ability to manage cultural resources, and that the pieces of that network, while interconnected, are not necessarily mutually supportive. The fundamental assumption of the course is that the preservation professional must understand the capabilities, deficiencies, and ongoing evolution of this network in order to be effective. The course will look at a range of relevant and exemplary laws and policies existing at all levels of government, examining them through case studies and in-depth analyses of pertinent programs and agencies at the local, state and federal level.

HSPV 640: Contemporary Design in Historic Settings

Pamela Hawkes

Tuesday, 1pm-4pm

ONLINE

Contemporary design can add value and meaning to historic settings of any age or scale, from individual landmarks to landscapes and neighborhoods. Rigorous dialogue with history and context enriches contemporary design. This seminar immerses designers, planners and preservationists in the challenges of design with existing structures and sites of varying size and significance. Readings of source materials, lectures and discussions explore how design and preservation theory, physical and intangible conditions, and time have shaped design response, as well as the political, cultural and aesthetic environments that influence regulation. Through sketch analytical exercises set in Philadelphia and outstanding case studies from around the world, students will learn to communicate their understanding of historic places, to critique and generate a range of responses to historic contexts. No prerequisites.

HSPV 739: Conservation Seminar: Masonry

Roy Ingraffia

Wednesday, 9am-12pm

HYBRID (Lab & Online)

*Pre-requisite: HSPV 555 Conservation Science and permission needed from department.

This seminar will offer an in-depth study of the conservation of masonry buildings and monuments with a particular focus on American building stone. Technical and aesthetic issues will be discussed as they pertain to the understanding required for conservation practice. Part 1 will address a broad range of building stone, masonry construction technologies, and deterioration phenomenon; Part 2 will concentrate on conservation methodology as well as past and current approaches for the treatment of stone masonry structures. The subject will be examined through published literature and case studies. Students will gain practical experience through lab and field exercises and demonstrations. The subject matter is relevant to interested students of conservation and preservation, architecture, landscape architecture, architectural history, and archaeology.

HSPV 531: American Domestic Interiors

Laura Keim

Monday, 9am-12pm

ONLINE

This course will examine the American domestic interior from the seventeenth through the twentieth centuries with emphasis on the cultural, economic, and technological forces that determined the decoration and furnishing of the American home. Topics covered include the evolution of floor plans; changes in finish details and hardware; the decorative arts; floor, wall, and window treatments; and developments in lighting, heating, plumbing, food preparation and service, as well as communication and home entertainment technologies. In addition to identifying period forms and materials, the course will offer special emphasis on historic finishes. The final project will involve re-creation of a historic interior based on in-depth documentary household inventory analysis, archival research, and study. Students will create a believable house interior and practice making design and furnishing choices based on evidence. Several class periods will be devoted to off-site field trips.

LANDSCAPE ARCHITECTURE

(All courses are 1 c.u. More detailed descriptions and syllabi will be posted on the bulletin boards outside the Landscape Architecture office at the end of August. Auditors need permission of the instructor. All information is subject to change).

LARP 730: Topics in Professional Practice: Transformational Leadership: Research and Practice

Lucinda Sanders, OLIN, Philadelphia

Wednesday, 3:00 – 6:00pm

ONLINE

This course is designed to explore aspects of transformational leadership which can provide greater agency to emerging landscape architects. Two possible conduits for expanding the field of landscape architecture are practice and research. These two means of expression will be woven together under the umbrella of transformational leadership. Registration will be limited to LARP students, others by permission of the instructor.

LARP 740-001: Topics in Digital Media: Sensing & Sensibilities: Arduinos, Drones, & Satellites

Keith VanDerSys and Sean Burkholder

Thursday, 9:00am – 12:00pm

HYBRID

As global ecological problems pileup, landscape architects are increasingly moving into sites and scales of immense physical and biological complexity. Considering these developments, the term “landscape” has arrived at a turning point; remote optics and radar are now our primary means of imaging and thus territorializing a “landscape.” The invisible world of NIR optics, radar, and algorithms have supplanted the previously dominant modes of imaging: human and photographic eyes. What are the epistemic impacts of this? Additionally, the trans-political nature of such far-reaching sites and scales makes good data procurement illusive; absent any singular governing body of territorial control, data collection and management are nonexistent. Our predictions and prescriptions, however, are dependent on the verity of spatial data. How then do we operate in these interstices?

Low cost, simple-to-use surveying and sensing equipment are increasingly available and accessible to designers. Sensing and syncing data collected across scales, however, remains cumbersome. Yet, imagining technologies form our primary means of translating and expressing our environment. Through hands-on field collection exercises and in-class demos, students will be introduced to an array of sensing tools that are central to collecting and analyzing environmental changes across scales: Arduino sensors; unmanned aerial vehicles (aka drones); RTK GPS receivers; and image recognition software. This technology and representation seminar will be taught collaboratively; the primary instructor will participate in all modules. Limited to LARP &

Planning students who have successfully completed LARP 544 Media IV or equivalent. Instructor permission is necessary for registration. Course availability is limited.

LARP 743/CPLN 670 (crosslisted): Topics in Digital Media: Geospatial Software Design

Dana Tomlin

Wednesday, 9am – 12pm

ONLINE

The purpose of this course is to equip students with a selected set of advanced tools and techniques for the development and customization of geospatial data-processing capabilities. The course is open to any student with experience equivalent to that of an entry-level class on GIS.

LARP 755: Arboretum Management I: Understanding Plants

Cynthia Skema, Botanical Scientist, Morris Arboretum

Tuesday, 1:30pm – 4:30 pm

HYBRID

In this course, students will learn about plants from an organismal perspective, an applied/practical perspective, an aesthetic perspective, an environmental perspective, and an evolutionary perspective. Utilizing the plant collection of the Morris Arboretum as a living laboratory and the expertise of arboretum staff, this course will bring all students, novices and experts alike, to a better understanding of plants. Session topics integrate both theoretical and hands-on practical work. Course assessment will be based on weekly practical assignments and two exams. Please note that this course takes place at the Morris

Arboretum in the Chestnut Hill section of Philadelphia and students are responsible for transporting themselves to and from the arboretum on their own for class each week. For further information about the course, students may contact Cynthia Skema (cskema@upenn.edu).

LARP 760: Topics in Ecological Design: Large-Scale Landscape Reclamation Projects

William Young

Friday, 2:00-5:00pm

ONLINE

This course will present practical techniques for the restoration of large tracts of disturbed lands. The course will emphasize techniques used to evaluate sites before a landscape design or restoration plan is prepared. Case studies will be employed to illustrate real world, practical application of course principles. Topics will include examples of how to evaluate and assess health and ecological (toxicity) condition of sites, remediation using sustainable practices, and how to add real economic value to clients' projects and portfolios of properties through ecological restoration. The class promotes sustainable design through the application of "the triple bottom line": Ecology-Economy-Culture, and a template approach on how to achieve that on every project. Open to all Weitzman School graduate students.

LARP 780: Topics in Theory and Design: Post-Carbon Futures & the Green New Deal

Nick Pevzner

Monday, 9:00am – 12:00pm

ONLINE

The highly ambitious Green New Deal (GND) aims to rapidly decarbonize the U.S. economy and remake the country's energy landscape, while providing well-paying jobs for millions of Americans. The GND has its roots in historical environmental, labor, and social justice struggles, including Franklin D. Roosevelt's "New Deal" programs of the 1930s and '40s. This seminar will explore the promise and potentials of the GND through both a critical historical reading of FDR's original New Deal programs, and through techniques of projective futures and scenario-building. Students will use scenarios to develop inspiring and relevant proposals for aggressively tackling climate change through public infrastructure and public works. We will spend part of the course unpacking original New Deal regional roads and trails (iconic New Deal highways), regional dam and power networks (the TVA and PWA), electrical grid infrastructure (Rural Electrification Administration), and large-scale environmental conservation (the CCC). The seminar will also tackle the relationship between government programs and radical social change, and explore the role of design and the public imagination implicit in the Green New Deal. This course is open to all interested students.

LARP 780-002: A Curious Landscape: Experimental Actions and their Communication

***Only available for entering 600 level students**

Sean Burkholder

Friday, 8am-11am

ONLINE

The process of design is not something given, as there is no correct set of methods that apply to every situation. Instead, the design process is something that is crafted, curated and continually evolving. This process of continual evolution is fueled by the curiosity of the designer – a desire to know more about the worlds we work within and how to more meaningfully engage them. In design, questions quickly become more important than answers. Learning to stimulate your curiosity, developing methods of forming meaningful questions, and communicating this process to others will be the foundations of this course, in addition to being fundamental components of the design process itself.

Many of the interventions we propose as designers are motivated by solving particular problems. However, there is particular value in finding, framing and formulating the problems themselves as opposed to proposing solutions to problems ready-made. During this seminar you will poke, prod and probe at material and contextual relationships as a way of asking questions. You will inquisitively and physically engage them. This process should be guided by a curiosity about the relationships that compose the worlds around us. It is with the insight gained through this process of curiosity that we can formulate the conditions that we believe could be most receptive to design.

This course is intended to be an experimental and fun introduction to Landscape Architecture at the Weitzman School. It will be

incorporative of your wide range of skills and backgrounds and is intended to foster a curiosity and experimental attitude that will serve you well as you begin your studies here at the University of Pennsylvania. This course is only open to entering 600 level students.

