

*Spring 2020 Elective Course Offerings as of 12/06/19***ARCHITECTURE**

*(Subject to change; check course search for up-to-date rosters.)*

**\*\*NEW COURSE\*\*****ARCH 712-001: Topics in Arch Theory II: Visual Research: Architecture and Media after WWII**

Taryn Mudge

Thursday, 9:00am-12:00pm

This course will question how architects have engaged in visual research of the built environment within the process of architectural design. In particular, we will consider the media and methods architects have used to observe and to record building sites and how visual information has influenced design thinking and informed architectural proposals in the postwar period. The visual material under investigation in this course will include, but is not limited to, photography (aerial, documentary, street, etc.), film, sketches, painting, collage, mapping as well as magazines and advertisements.

Additionally, we will consider the physical distance and relationship between the observer and the observed. For example, does the architect observe the site from the air, as a pedestrian, or through a windshield? Do they borrow images or make their own? Are they in search of precise information or are they hoping to uncover the mood or local character? Are they preparing for a commissioned project or are they dreaming of a utopian future? The course is organized into three parts: Part I will concentrate on approaches to visual research and observation in Europe immediately following the Second World War, Part II will focus on the American context and images of postwar consumer culture, and Part III will discuss the rapid evolution of media and architecture in the late 20th century and question the trajectory of the “post” periods – post-modern, post-post-modern, post-documentary, post-digital and beyond.

**ARCH 712-003: Topics in Arch Theory II: Architectural Envelopes: Technology and Expression**

Ariel Genadt

Thursday, 2:00pm-5:00pm

Since the mid-19th century and the advent of steel and glass technologies, building envelopes have become the prime architectural subject of experimentations and investments, as well as physical failures and theoretical conflicts. This seminar examines the relationship between the means, materials and techniques used in construction and the architectural expression of salient case studies, unfolding their functions and behaviors, in practice and in theoretical texts. It uses examples from around the world, built in different cultures and climates, encompassing a wide range of materials and techniques. The seminar is premised on the idea that quantifiable parameters, such as exchanges of energy, air, light and water, so often over-determinant in the appreciation of architecture’s performance, ought to be coupled with architecture’s expressive function. Articulate envelopes are those where the revelation of construction technology and environmental mediation serves both quantifiable and qualitative functions.

**ARCH 712-005: Topics in Arch Theory II: Architectures of Refusal: On Spatial Justice in the South Bronx**

Eduardo Rega Calvo

Thursday, 9:00am-12:00pm

A neighborhood with a remarkable history of struggle against inept municipal governments, neoliberalism and the forces behind the breeding of decay, the South Bronx is currently experiencing an aggressive wave of gentrification and policies that keep benefitting small elites. Grassroots organizations are fighting back while practicing radical imaginations for a more just future. Architectures of Refusal: On Spatial Justice in the South Bronx aims to reflect and develop collective architecture research on contemporary visionary architectural and urban activist practices in the South Bronx that refuse

capitalist exploitation vis a vis New York City's economic transformation: from top-down public disinvestment and privatization to bottom-up self-provisioning and organizing.

Through reading discussions, film/audiovisual analysis and mobilizing various tools of inquiry on the city, the seminar will learn from those involved in the long-term and grassroots processes that have been redrawing the limits of socio-spatial organization in the South Bronx. The seminar will study the history of radical social movements from the second half of the 20th century in NYC with a special focus on the South Bronx.

Groups of students will develop research and spatial visualizations of grassroots struggles for environmental and food justice, post-capitalist economic practices, public health, prison abolitionism and anti-gentrification. A short documentary film will be a collective deliverable for the seminar featuring interviews to NYC and South Bronx activists and residents, segments of existing movies and video recorded in our various seminar visits and meetings in the neighborhood. The work produced in the seminar will be included in the Architectures of Refusal platform which brings to focus the emancipatory spatial practices of social movements that oppose the neoliberal oligarchical status quo.

#### **ARCH 712-004: Topics in Arch Theory II: Baroque Parameters**

Andrew Saunders

Tuesday, 1:00pm-4:00pm

Deep plasticity and dynamism of form, space and light are explicit signatures of the Baroque Architecture; less obvious are the disciplined mathematical principles that generate these effects. Through art historians, Rudolf Wittkower, Heinrich Wölfflin, and John Rupert Martin in addition to philosopher Gottfried Leibniz (via Gilles Deleuze), Robin Evans and the history of mathematics by Morris Kline, the course will examine how geometry and mathematics were integral to 17th-century science, philosophy, art, architecture and religion. The new revelation of a heliocentric universe, nautical navigation in the Age of Expansion, and the use of gunpowder spawned new operative geometry of elliptical paths, conic sections and differential equations. The geometric and political consequences of these advances are what link Baroque architects Francesco Borromini and Guarino Guarini to other great thinkers of the period including Descartes, Galileo, Kepler, Desargues, and Newton. Through the exploitation of trigonometric parameters of the arc and the chord, Baroque architects produced astonishing effects, performance and continuity. Generative analysis by parametric reconstruction and new speculative modeling will reexamine the base principles behind 17-century topology and reveal renewed relevance of the Baroque to the contemporary.

#### **ARCH 714-001: Museum as Site: Critique, Intervention, and Production**

Andrea Hornick

Thursday, 1:00pm-4:00pm

In this course, we will take the museum as a site for critique, invention, and production. As architecture, cultural institution, and site of performance, the museum offers many relevant opportunities. Students will visit, analyze, and discuss a number of local exhibitions and produce their own intervention in individual or group projects. Exhibition design, design of museum, the process of curating, producing artworks ranging from paintings to installation and performance, as well as attention to conservation, installation, museum education, and the logistics and economics of exhibitions will be discussed on site and in seminar. These topics and others will be open for students to engage as part of their own creative work produced for the class and an online exhibition.

#### **ARCH 718-001: History and Theory of Architecture and Climate**

Daniel A. Barber

Wednesday, 9:00am-12:00pm

Climate change is upon us. This course discusses the history of thinking about climate in architecture. We confront the geographic and epistemic challenges of climate change and other environmental threats, and reconsider the forces seen to condition the development of modern architecture. The course will explore the history of buildings as mechanisms of climate management, and the theoretical and conceptual frameworks that pertain.

As many of the arguments and innovations in the climate discourse were made through visual means, the images produced by architects and others interested in understanding the relationship between "man" and "climate" will be a central arena of

exploration. We will treat these images as evidence of material innovations in energy efficient architectural design technologies and also as evidence of new ways of thinking about ecological, political, cultural, and economic relationships. These narratives, images, and methods – and the broader understanding of environmental systems that emerged since the immediate post-war period – also suggest a complex relationship to the present. Rather than examine instrumental aspects of these methods and their histories, we will explore different historiographic and conceptual means for the archival analysis of climate, technology, and architecture. Recent texts concerned with theories of historical change, of new ideas about the human, and with the cultural anxieties associated with the Anthropocene will be read to this end.

**ARCH 726-001: Furniture Design as Strategic Process**

Mikael Avery &amp; Brad Ascalon

Thursday, 12:30pm-3:30pm

Like architecture, furniture exists at the intersection of idea and physical form. Due to the specific scale that furniture occupies, however, this physical form relates not only to the environment in which the furniture is set, but also intimately to the physical bodies that interact with and around it. Additionally, as a manufactured product, often specified in large quantities, furniture must also address not only poetic considerations, but practical and economic ones as well. Instead of being seen as one-off objects, the furniture created in this seminar focuses on furniture development as a strategic design process where the designer's role is to understand the various responsibilities to each stakeholder (client/manufacturer, market/customer, environment) and the additional considerations (materials, processes, manufacturability, etc.), and ultimately translate these points into a potentially successful product.

In order to approach furniture in this manner, the course will be structured around specific design briefs and clustered into three distinct but continuous stages. First, through focused research into stakeholder needs and potential market opportunities, students will craft tailored design proposals and development concepts accordingly. Next, students will work toward visualizing a concept, complete with sketches, small mock-ups, scale-model prototypes, technical drawings, connections and other pertinent details in order to refine their proposals and secure a real world understanding of the manufacturing processes and the potential obstacles created by their decisions. From insights gained and feedback from these steps, students will ultimately develop a final design proposal for a piece, collection, or system of furniture that successfully leverages their understanding of a thoughtful and deliberate design strategy.

**ARCH 732-001: Tech Designated Elective: Enclosures: Selection, Affinities & Integration**

Charles Jay Berman

Wednesday, 9:00am-12:00pm

Details should be considered in the traditional sense, as assemblages of constituent elements. Not as a mere collection of parts, rather as an "assemblage", the act of assembling under a guiding principle; the relationship to a whole. Frascari defines the detail as the union of construction – having the dual role of ruling both the construction and construing of architecture. This obligation of the relationship of the parts to the whole and the whole to the parts is the essence of the revelatory detail in service of architecture.

This seminar seeks to establish a framework of understanding enclosures in this sense of the revelatory detail. We will seek to counterpoint the numerical (external) facts of what is accepted as facade design (criteria, codes, loads, forces and consumptions) with an understanding of the generative processes underlying these physical criteria. The aim of this seminar is to arm the student with a guided understanding of the materials and assemblies available to them to form enclosures. The underlying intent is twofold.

In a generative role as architects, the course intends not for an encyclopedic overview of the elements and calculative methodologies of envelope design. Rather we will endeavor to investigate concepts of enclosure through assemblage of elements, mediated by details, in the service of the architectural intentions of the student.

In an execution role as architects in practice, the investigation into methodologies of deployment and execution of enclosure, materials and assemblies is intended to arm the students to engage proactively in their future practices with the succession of consulting engineers, specialty facade consultants, manufacturers and facade contractors that they will encounter during the execution of their work.

**\*\*NEW COURSE\*\*****ARCH 732-002: Tech Designated Elective: Computational Composite Form**

Ezio Blasetti

Tuesday, 6:00pm-9:00pm

This seminar will research algorithmic generative methods and the use of carbon fiber in robotics for architectural design. The research will focus on the intersection of computation, form generation, simulation and robotic fabrication. The objective is to develop and document specific computational tools and material prototypes that span across design phases, from concept to fabrication.

This course investigates computation as an embodied application in the design, manufacturing and lifespan of architectural building elements. Students will use object-oriented programming to develop advanced generative and analytical algorithms. Students will explore techniques of advanced geometric operations for the design and robotic manufacturing of complex building components. The seminar will include workshops with micro-controllers for the design of prototypes with embedded informational systems. Students will be introduced to concepts and techniques of evolutionary computation and machine learning and explore their application in architectural design.

**ARCH 732-003: Tech Designated Elective: Deployable Structures**

Mohamad Al Khayer

Thursday, 9:00am-12:00pm

The objective of this course is to introduce the rapidly growing field of deployable structures through hands on experiments conducted in workshop environments. Students develop skills in making deployable structures.

**ARCH 732-004: Tech Designated Elective: Daylighting**

Jessica Zofchak

Tuesday 6:00pm-9:00pm

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 732-005: Tech Designated Elective: Principles of Digital Fabrication**

Mikael Avery

Thursday, 9:00am-12:00pm

Through the almost seamless ability to output digital designs to physical objects, digital fabrication has transformed the way designers work. At this point, many of the tools and techniques of digital fabrication are well established and almost taken for granted within the design professions. To begin this course we will review these 'traditional' digital fabrication techniques in order to establish a baseline skill set to work from. We will then explore hybrid approaches to digital fabrication in which multiple techniques are utilized within the same work. During all of these exercises we will discuss the development of 3D printing and its place in the digital fabrication dialogue.

**ARCH 732-006: Tech Designated Elective: Heavy Architecture**

Philip Ryan

Thursday, 3:00pm-6:00pm

*Heavy Architecture* is a seminar that will examine buildings that, through their tectonics or formal expression, connote a feeling of weight, permanence, or "heaviness." Analysis of these buildings and methods of construction stand in relation to the proliferation of thin, formally exuberant, and, by virtue of their use or commodified nature, transient buildings. The course is not a rejection or formal critique of "thin" architecture, but instead an analysis of the benefits and drawbacks of the "heavy" building type in terms of a building's financial, environmental, symbolic or conceptual, and functional goals. The course will parse the alleged nostalgic or habitual reputation of "heavy" architecture within the context of architecture's

ongoing struggle to be the vanguard of the built environment even while its relevancy and voice is challenged by economic, stylistic, and social forces.

**\*\*NEW COURSE\*\***

**ARCH 732-007:** Tech Designated Elective: Embodied Carbon & Architecture

Stephanie Carlisle

Monday, 6:30pm-9:30pm

This course brings together in-depth training on Life Cycle Assessment (LCA) modeling methods and tools, with insight into the context necessary to critically interrogate and engage in LCA practice and carbon communication. In the course, students will receive hands-on experience building comparative LCA models using a range of currently available software tools, while also deepening abilities to research material life cycles, industrial processes, supply chain dynamics and political and economic dimensions of environmental impact data. Finally, the course will discuss and debate current innovations in materials manufacturing and policy changes that are set to mainstream the consideration of embodied carbon and transform construction practices. The overall goal of the course is to increase carbon literacy and to empower students with a working understanding of climate change, life cycle assessment, and the many strategies by which designers can immediately reduce the carbon footprint of their projects.

**ARCH-734-001:** Ecological Architecture, Contemporary Practices

Todd Woodward

Tuesday, 9:00am-12:00pm

Architecture is an inherently exploitive act – we utilize resources from the earth and produce waste and pollution to create and occupy buildings. We have learned that buildings are responsible for 40% of greenhouse gas emissions, 15% of water use and 30% of landfill debris. This growing realization has led building designers to look for ways to minimize negative environmental impacts. Green building design practices are seemingly becoming mainstream. Green building certification programs and building performance metrics are no longer considered fringe ideas. This course will investigate these trends and the underlying theory with a critical eye. Is "mainstream green" really delivering the earth-saving architecture it claims? As green building practices become more widespread, there remains something unsatisfying about a design approach that focuses on limits, checklists, negative impacts and being "less bad." Can we aspire to something more? If so, what would that be? How can or should the act of design change to accommodate an ecological approach?

**ARCH 736-001:** Tech Designated Elective: Building Acoustics

Joe Solway

Tuesday, 3:00pm-6:00pm

0.5 CU - 01/15/20 – 03/13/20

This course covers the fundamentals of architectural acoustics and the interdependence between acoustics and architectural design. The course explores the effects of materials and room shape on sound absorption, reflection and transmission, and demonstrates how modeling, visualization and auralization can be used to understand acoustic and aid the design process. The course includes a lecture on the history and future of performance space design, a visit to the Arup SoundLab in New York and two assignments, one practical (Boom Box) and one theoretical (Sound Space).

**ARCH 736-002:** Building Information Modelling

Patrick Morgan

Thursday, 5:00pm-8:00pm

0.5 CU – 01/15/20 – 03/13/20

BUILDING INFORMATION MODELING (BIM) has become the lingua franca of building. During the past decade, significant changes have taken place in the nature of design and construction practices which has transformed the very nature of architectural representation. Architects no longer draw depictions of that which they intend for others to build; rather, they model, code, simulate, data-scape, and integrate that which they virtually build alongside their colleague and collaborators – engineers and builders.

The production of information rich virtual BIM models is the ground upon which all construction activities for advanced and complex multi-story buildings takes place. BIM is also at the origins of contemporary innovations in Integrated Design, the creation of collaborative platforms which aim to maximize the sustainable outcomes in the project delivery of buildings. Moreover, being able to collaboratively produce, share, and query a Building Information Model renders possible the global practice of design and construction. The course will familiarize students to this important field of architectural practice.

**ARCH 736-005: Tech Designated Elective: Water Shaping Architecture**

Stuart Mardeusz & Jonathan Weiss

Tuesday, 3:00pm-6:00pm

0.5 CU - 03/16/20 – 04/29/20

While efforts in sustainable design have focused on energy use, carbon footprint, light and materials impact on human occupants, it could be argued that water is the ultimate test of sustainability. Water is amongst the most compelling and significant design topics of the 21st Century. Not just a necessity of life, water has central social, cultural, and symbolic meanings and plays an essential role for all living organisms. As our planet is ever more challenged to provide for increasing populations with finite resources, our approach to water will need to evolve to meet our new and future realities.

The goals of this course are to recognize the significant history of designing water, and touch upon the social, cultural, ecologic, and economic impact that designed water has had and will play in the 21st Century, and in addressing urgent global challenges linked to climate change.

Water Shaping Architecture will challenge individuals to project possibilities for our disciplines and begin to inform students about the crucial role design plays in shaping this resource. How do our choices as architects impact access to water, and how are those issues predetermined on a building, local, regional and continental scale? How can our projects react resiliently to changing climate and changing reality?

If Sustainability is about providing for our needs while allowing for future generations to do the same, how does our outlook on water shape our decision-making process?

The class includes readings, short sketch assignments and a case study report

**ARCH 736-006: Tech Designated Elective: Architectural Workflows in the Design and Delivery of Buildings**

Richard Garber

Wednesday, 9:00am-12:00pm

0.5 CU - 03/16/20 – 04/29/20

This seminar in design and technology will focus on the concept of the architectural workflow as it pertains to both contemporary operations in design practice as well as novel project delivery methods enabled by Building Information Modeling (BIM). The synthesis of these digital design platforms with simulation and increasing access to data in the form of natural phenomena, ecology, and building performance has allowed contemporary architects to engage the notion of workflows with others in design and construction practices. Increasingly, this engagement involves object-oriented computing operations and non-human interfaces that expand architectural scope beyond buildings, allowing us to more broadly consider the complex environments in which our buildings exist. As such, workflows occupy an expanded territory within architectural practice and merge digital-design operations with construction activities, project delivery, and post-occupation scenarios in both virtual and actual formats. The implications for the architecture, engineering and construction (AEC) industry could not be greater, and these new collaborative models have become as important as the novel buildings they allow us to produce.

**ARCH 742-001: Function of Fashion in Architecture**

Danielle Willems

Tuesday, 6:30pm-9:30pm

The Function of Fashion in Architecture will survey the history of fashion and the architectural parallels starting from Ancient Civilization to Present. The focus will be on the relevance of garment design, methods and techniques and their potential to redefine current architecture elements such as envelope, structure, seams, tectonics and details. The functional, tectonic and structural properties of garment design will be explored as generative platforms to conceptualize very specific



architectural elements. One of the challenges in the course is the re-invention of a means of assessment, the development of notations and techniques that will document the forces and the production of difference in the spatial manifestations of the generative systems.

**ARCH 748-001** Architecture and the New Elegance

Hina Jamelle

Wednesday, 9:00am-12:00pm

The seminar will define and elaborate on the following topics for the digital discourse- the contemporary diagram, technique, structure, architectural systems and aesthetic projections. Technological innovations establish new status quos and updated platforms from which to operate and launch further innovations. Design research practices continually reinvent themselves and the techniques they use to stay ahead of such developments. Reinvention can come through techniques that have already been set in motion. Mastery of techniques remains important and underpins the use of digital technologies in the design and manufacturing of elegant buildings. But, ultimately, a highly sophisticated formal language propels aesthetics.

**ARCH 750-001:** Parafictional Objects

Ahmet Kutan Ayata

Friday, 9:00am-12:00pm

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 762-401:** Design and Development

STAFF

Friday, 9:00am-12:00pm

This newly reconstituted course will introduce designers and planners to practical methods of design and development for major real estate product types. Topics will include product archetypes, site selection and obtaining entitlements, basic site planning, programming, and conceptual and basic design principles. Project types will include, among others; infill and suburban office parks, all retail forms, campus and institutional projects. Two-person teams of developers and architects will present and discuss actual development projects.

**ARCH 765-001:** Project Management

Charles Capaldi

Friday, 9:00am-12:00pm

This course is an introduction to techniques and tools of managing the design and construction of large, and small, construction projects. Topics include project delivery systems, management tools, cost-control and budgeting systems, professional roles. Case studies serve to illustrate applications. Cost and schedule control systems are described. Case studies illustrate the application of techniques in the field.

**ARCH 768-401:** Real Estate Development

Asuka Nakahara

Wednesday, 3:00pm-6:00pm

This course focuses on "ground-up" development as well as re- development, and acquisition investments. We will examine traditional real estate product types including office, R&D, retail, warehouses, lodging, single-family and multi-family residential, mixed use, and land. "Specialty" uses like golf courses, resorts, timeshares, and senior assisted living will be analyzed. You will learn the development process from market analysis, site acquisition, zoning, entitlements, approvals,

site planning, building design, construction, financing, and leasing to ongoing management and disposition. Additional topics - workouts, leadership, and running an entrepreneurial company - will be discussed. Throughout, we will focus on risk management, as minimizing risk first results in maximizing long run profits and net worth accumulation.

**ARCH 812-001: Methods in Architectural Field Research**

Franca Trubiano

Friday, 9:00am-12:00pm

Is a seminar aimed at first year, second semester PhD and MS students in Architecture who aim to develop their field definition (biblio + statement) and/or research proposal in pursuit of their advanced research degree. The course is also of interest to M.Arch students interested in advanced forms of academic research. The course will cover the full context of research methods in both the humanities and sciences attendant to architecture. Students will be tasked with identifying and naming a field of study, an initial research question to investigate, a methodology they will employ, and a value proposition for their work.

**ARCH 814-001: Idea of an Avant-Garde in Architecture: Reading Manfredo Tafuri's *The Sphere and the Labyrinth***

Joan Ockman

Wednesday, 9:00am-12:00pm

No historian of architecture has written as intensely about the contradictions of architecture in late- modern society or reflected as deeply on the tasks of architectural historiography as Manfredo Tafuri (1935–1994). For both architectural practitioners and critical intellectuals, the Italian historian's refusal to place any "hopes in design" within an advanced capitalist society produced an impasse in the 1970s and '80s. This ultimately led to calls to oust Tafuri—to move beyond his pessimistic and lacerating critique.

The seminar undertakes a close reading of one of Tafuri's richest and most complexly conceived books, *The Sphere and the Labyrinth: Avant-Gardes and Architecture from Piranesi to the 1970s*. Published in Italian in 1980 and translated into English in 1987, the book appeared at the midpoint of Tafuri's career and at a pivotal moment in relation to postmodernism. It is the first sustained effort to define and historicize the concept of the avant-garde specifically in relation to architecture. Unconventionally, Tafuri begins his account in the eighteenth century with the "wicked" architectural inventions of Piranesi. He then jumps to Soviet film director Sergei Eisenstein and his theory of montage, which was inspired by Piranesi's drawings. The book's central section traverses a range of architectural and urban developments in Europe and the United States during the first three decades of the twentieth century. Among the topics discussed are radical innovations in the modernist theater, the widening network of exchanges among avant-garde protagonists, the reconceptualization of urbanism in the Soviet Union after the Bolshevik revolution, the American skyscraper city, and the politics of social housing in Weimar Germany. The book concludes with a powerful—and mordant—verdict on the neo-avant-gardes of the 1960s and '70s.

The class moves through *The Sphere and the Labyrinth* chapter by chapter, beginning with Tafuri's formidable methodological introduction, "The Historical 'Project.'" Discussions of each chapter are supplemented with primary documents and a selection of other related readings. The concern is equally with history and historiography: with specific material and ideological contexts, and with the ways they have been written into architectural history. Our central aim is to explore the role and function of avant-gardes in the history of architecture. Does the concept of the avant-garde still have relevance today? Or should it be relegated to the dustbin of twentieth-century ideas?

The seminar is open to Ph.D. students and others with a solid background in architectural history. Non-Ph.D.'s may be admitted by permission of the instructor.



**\*\*Study Abroad Programs\*\***

Study Abroad Programs allows students to enrich their architectural studies directly with travel and intensive study of sites and cities, offering the longest exposure and duration of stay: students become fully immersed in local cultures and sites, living, seeing important sites, and studying for four weeks in the late spring. The two programs in 2020 offer different themes and cultures; design exercises complement historical and discursive academic matter. **NB: These courses are offered as spring electives and can be taken with or without credit.**

In 2020, students study and travel for approximately 4 weeks at the end of the spring semester (mid/late-May through mid/late-June). These programs can be taken for or without credit. These programs are open to both graduate and undergraduate students, at all levels, as well as to graduate students outside of Weitzman School in and outside of the University of Pennsylvania, with approval of the instructors. See below for information on the different programs, fees, credit, and application procedures.

**ARCH 782-001: Paris: Its Constructs, Its Liminalities**

Travel to Paris & Lyons (TBC)

May 20 – June 20

Annette Fierro

The Paris Program is a long-established academic program that draws from many old and new associations local to this greatest of Western cities. In its four-week study, the program consists of lectures on architecture, landscape and urbanism from important scholars, architects and engineers, with accompanied tours to buildings, landscapes, and offices.

We experience architecture and the city of Paris with an immediate sense of content.

We begin with issues essential to understanding Paris, the archetypal experimental city, and then fine-tune our studies to particular student interests: (1) Urbanism: from early Roman and medieval morphologies, to the city's seminal role in initiating the discipline of urban design (Haussmann), to infamous speculative urbanisms (Situationists), to ongoing dilemmas wrought by post-colonial peripheral developments. (2) Technological trajectories: from the gothic cathedral, to the iron structures of Labrouste and Eiffel, to the iconoclasm of the Centre Pompidou, to the vanguards of structural glass technology, and contemporary building methods found in buildings such as Gehry's Fondation Louis Vuitton. (3)

Contemporary civic architecture, beginning with François Mitterrand's last great rebuilding of the city, the Grands Projets, but extending into the newer projects at Les Halles, Parc de la Villette, La Defense and the most recent re-envisioning of the Parisian periphery, Le Grand Paris. (4) The congruence between landscape and architecture in recent projects that brings the botanical and biological directly into the context of building. (5) Specific architectural moments, especially those of Le Corbusier, Hector Guimard, Pierre Chareau, and more recently, Jean Nouvel, Dominique Perrault, and Jakob & McFarlane.

We TOUR many of these buildings and landscapes accompanied by scholars, architects and engineers and we hear their lectures simultaneously—many of these which cannot be entered individually. We VISIT various professional offices. We begin to know, deeply, the context in which architecture and landscape is produced in this profoundly important city. Finally, we PRODUCE one photography/video/writing project which serves to focus all of the above through a creative act, recasting a moment in the city in experimental media. We read, observe, absorb, write, illustrate, and document and re-document the spaces and actions of the city, in the city.

ARCH 782-002: Greece: Apomachenes

**Travel to Athens, Aegean Islands, Epidavros**

May 20 – June 20

Danielle Willems & Ezio Blasetti

Apomechanes is a computational design workshop as well as a study abroad program in Greece. This is part of a series of workshops and study abroad programs that have run since 2009. The title apomechanes is derived from “από μηχανής”, literally “from the machine”, and refers to the machinic nature of the studio in an abstract/diagrammatic sense.

Apomechanes is a calque from Greek meaning “god from the machine”. The Study Abroad Program in Greece will organize a series of visits to both archaeological sites as well as modern and contemporary architectural sites. Weitzman School

students will exchange and collaborate with a selected group of Greek Architecture students, Artists and Designers during a week-long design workshop. There will be a series of lectures from professionals and academics, which will frame the proceedings of the workshop. The final presentation will take the form of a symposium and an installation. The Greece study abroad program will run from 5/20/2019 to 6/20/2019.

This program exposes students to the ancient and contemporary of Greek culture, archeology, city planning and architecture foundations. Many canons of our discourses come directly from Ancient Greek civilization, ranging from our Democracies to City Planning, Theory and Design. Every Designer should have the opportunity to study and closely read these foundational elements. These spaces, architecture and archaeological sites in Greece hold vast value to contemporary designers and are an essential part of educating the next generation of Designers. We will cover the following topics in this program (1) Ancient Architecture, Archaeology and City Planning. (2) The Generative & the Geologic: The Ancient Rivers of Athens. (3) Contemporary Athens and Mega Developments. (4) Aegean Archipelagos and Aerial Photogrammetry. The program is organized from the end of May to the end of June. The typical week is structured with tours of Ancient and Contemporary site in the start of the day, and guest lectures and cultural events in the evening. Lectures are organized with the Fine Arts and Architecture Departments in Athens, conveniently located in the center of Athens walking distance from the Acropolis. Weekend trips are left open to explore the cities and the islands, unless there is a planned excursion. In the past we have organized trips to Archaeological sites outside of Athens such as Meteora, Epidauros, Peloponnese, Ionian Islands and Aegean Islands. There is also a sailing trip, which will explore the Archipelagos of Greece. We will engage in 3D scanning ancient sites. Students will live in the heart of the Ancient City Center with public transportation to sites of interest and leisure.

## **CITY PLANNING**

### **CPLN 624: Readings in Race, Poverty and Place**

Jalil Bishop

Wednesday, 9:00am-12:00pm

In recent years, long-disinvested cities have become the site of renewed investment, population growth, and economic development in a phenomenon often described as gentrification. Nonetheless, socioeconomic inequality between races, ethnicities, genders, and places within the larger metropolitan area continue to persist, suggesting that a rising tide does not raise all boats. Planners must grapple with these issues of inequality and inequity, particularly the implementation of plans and policies that may in theory provide benefits to all, but in practice continue to accumulate benefits for a select few. This course examines the construction of race, the making of a place, and the persistence of poverty in racialized places in the city. This course will engage in a critical discussion of the aforementioned themes, such that the normative notions of race, capitalism, urbanism, gender, power, and space are upended to privilege more marginalized perspectives of these processes.

### **CPLN 631: Planning for Land Conservation**

Tom Daniels

Tuesdays, 5:00pm-8:00pm

Land preservation is one of the most powerful, yet least understood planning tools for managing growth and protecting the environment. This course provides an introduction to the tools and methods for preserving private lands by government agencies and private non-profit organizations (e.g., land trusts). Topics include purchase and donation of development rights (also known as conservation easements), transfer of development rights, land acquisition, limited development, and the preservation of urban greenways, trails, and parks. Preservation examples analyzed: open space and scenic areas, farmland, forestland, battlefields, and natural areas.

**CPLN 582: Place, Taste, and Neighborhood Change: Frameworks for Integrating Aesthetics, Equity and Creativity**

Matthew Miller

Wednesday, 2:00-5:00pm

Places provide a sense of identity and orientation to the world for its users in ways that go beyond the traditional practice areas that urbanists are trained to understand (i.e. housing, economic development, transportation). The popularization of artistic, cultural, and “creative interventions” in redevelopment has added to that complexity in hybrid ways require new tools, languages, and frameworks to meaningfully participate in the development process. By taking a humanistic and scientific views of the longstanding arts-based community development field now known as “creative placemaking”, the class will help learners formulate critical, evaluative answers to pressing, emergent questions for urban practitioners. In particular, learners will explore the various state-sponsored meanings of creative placemaking, artistic excellence, and artistic merit. During the course we will interrogate, compare, and articulate the power dynamics embedded in those definitions with new, alternative, and stakeholder-centric definitions. The course aims to invite conversation, reflection, and sharing of best practices alongside community-based leaders with the promise that learners will be able to apply equity-based frameworks to these debates. Learners will emerge from this guided journey with a sharpened ability to identify, generate, and extend authentic, inclusive arts-based neighborhood change.

**CPLN 685: Environmental Readings**

Frederick Steiner

Tuesdays, 9:00am-12:00pm

In this seminar, we will explore this green thread and analyze its influence on how we shape our environments through design and planning. The course has three parts. Throughout, the influence of literature on design and planning theory will be explored. The first part will focus on three most important theorists in environmental planning and landscape architecture: Frederick Law Olmstead Sr., Charles Eliot and Ian McHarg. The second part of the course will critically explore current theories in environmental planning and landscape architecture. The topics include: frameworks for cultural landscape studies, the future of the vernacular, ecological design and planning, sustainable and regenerative design, the languages of landscapes, and evolving views of landscape aesthetics and ethics. In the third part of the course, students will build on the readings to develop their own theory for ecological planning or, alternatively, landscape architecture. While literacy and critical inquiry are addressed throughout the course, critical thinking is especially important for this final section.

**FINE ARTS****DSGN 506: DESIGN 21**

Orkan Telhan

Monday, 1:30pm-4:30pm

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. The 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 the realities of the century as creative and critical citizens who can shape its products and values.

**DSGN 517: Cultures of Making**

Orkan Telhan

Wednesday, 2:00pm-5:00pm

Cultures of Making is an integrative studio that explores new frontiers of design that enable, empower, and interrogate the human in the 21st century. We will take the human body, identity, or image as a site of investigation and design new types of products for it. Through our designs, we will raise questions about the motivations behind quantifying ourselves, desires for being permanently available and connected, complacency with not having privacy or intimacy, and eagerness to substitute craft, labor, and decision-making with intelligent systems from self-driving cars to painting bots and trading algorithms. This studio will pursue a research - and production-oriented format. We will incorporate techniques and technologies from fields as diverse as printed electronics, biochemical fabrication, machine learning and robotics to develop applications that respond to the emergent perceptions of the human for its individual, social, or environmental identity. Students are not required to have any technical skills, but expected to complete one FNAR design studio before enrolling this course.

**FNAR 523: Drawing I**

Section 401 – Alexis Granwell – Tuesday and Thursday: 5:00pm-8:00pm

Section 402 – Kaitlin Pomerantz – Monday and Wednesday: 5:00pm-8:00pm

Section 404 – Erlin Geffard – Monday and Wednesday: 2:00pm-5:00pm

Section 405 – Roderick Jones – Tuesday and Thursday: 1:30pm-4:30pm

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](mailto:fnarug@design.upenn.edu)

**FNAR 524: Drawing Investigations**

Ivanco Talevski

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

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 image construction, and the processes of synthesis and transformation in order to communicate ideas through visual means. Recommended for students in all areas.

**DSGN 528: Functions and Material**

Joshua Mosley

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

This studio course will introduce methods of material selection and fabrication with the goal of developing evocative and effective designs. We will learn parametric modeling techniques that allow visualization to begin before all of the requirements of a design are known. We will implement techniques that allow us to structurally test and optimize forms to be stronger, lighter, to fail more predictably, or to function efficiently. The class will work identify to materials with properties that introduce new structural or conceptual possibilities for our designs. For each project, we will use a broad range of fabrication techniques for metals, natural and synthetic materials. The goal of the course is to develop a creative approach towards learning to work with unfamiliar tools and materials:

**FNAR 531: Painting Practices**

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

Section 402 – Elisabeth Durham – Tuesday and Thursday: 9:00am-12:00pm

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 545: Sculpture Practices**

Oren Pinhassi

Tuesday and Thursday, 1:30-4:30pm

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](mailto:fnarug@design.upenn.edu)

**DSGN 547: Environmental Animation**

Chris Landau

Monday and Wednesday, 2:00pm-5:00pm

This studio-based course examines the disciplinary spaces of landscape, art, and architecture through the medium of 3D animation and storytelling. We immerse ourselves in environments that may be as small as a cell or as large as a planet. From the refiguring of images, models, graphic design, or video to visualization or coding the genesis of whole environments, this course will allow for a variety of entry point for students of different disciplines and skill levels. Projects will range in scope from animated GIFs to animated shorts. This course embraces a spirit of invention, collaborative learning, and interdisciplinary crosspollination. Experience in landscape architecture, architecture, animation, programming, film, GIS, and/ or graphic design is encouraged. We will examine and discuss some standard typologies such as the walk-through, data-visualization, as well as filmic and avant-garde strategies as starting points for creative

reinterpretation of space. We will primarily be using 3D Studio Max and After Effects with support from Next Engine 3D Scanner, Rhino, and Grasshopper. Scripting will be included in most assignments to enhance artistic control of the software.

**FNAR 550: Intro to Printmaking**

Joshua Zerangue

Monday and Wednesday, 5:00pm-8:00pm

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. If you need assistance registering for a closed section, please email the department at [fnarug@design.upenn.edu](mailto:fnarug@design.upenn.edu).

**FNAR 552: Screenprinting**

Roerick Jones

Tuesday and Thursday, 5:00pm-8:00pm

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.

**FNAR 565: Nonhuman Photography**

Artie Vierkant

Tuesday, 11:00am-2:00pm

Our culture is increasingly made up of nonhuman actors. Facial recognition algorithms spend more hours "seeing" in a day than humans; drones equipped with visual sensors conduct our warfare; voice chat bots call businesses and make appointments for us. Meanwhile, humans conduct labor that we view as the work of bots: posting disinformation for political gain, or mass-producing children's YouTube videos for ad revenue. As objects begin to see and think, how can we understand the role of human agency and the possibilities (or lack thereof) for artistic expression in this space? What does the future of art look like when more photographs are taken as surveillance than by individuals, or when important cultural producers are nonhuman intelligences? In Nonhuman Photography, we will attempt to interrogate these ideas from an artist's perspective, approaching nonhuman agents and the various components that comprise them both as tools for studio work and as generative entities in their own right. Over the course of the semester we will read and discuss these issues extensively, while engaging in studio projects in a variety of media. While the course bears the title "photography", we will find that many of these tools will be non-photographic or para-photographic, and as a result many of our studio projects will be interdisciplinary. This course takes its name from Joanna Zylińska's Nonhuman Photography, parts of which we will examine over the course of the semester.

**DSGN 566: Graphic Design**

Section 401 – Mark Owens – Thursday, 4:30pm-8:30pm

Section 402 – Jiwon Woo – Monday, 1:00pm-5:00pm

The aim of this course is to introduce students to creative ways to use color, typography, and layout across new 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. This 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. Prerequisite(s): FNAR 636. Course Fee \$75.00

**DSGN 570: Graphic Design Practicum**

David Comberg

Tuesday and Thursday, 1:30-4:30pm

Practicum provides a real world experience for students interested in solving design problems for nonprofit and community organizations. The studio works with two clients each semester, and previous projects have included print design, web design, interpretive signage, and exhibit interactives. All projects are real and will result in a portfolio-ready finished product. Students will participate in a full design experience including design, client interaction, presentations, production, and project management. In addition, students will take field trips, meet professionals and go on studio visits.

Prerequisite(s): FNAR 566 or FNAR 569. Course Fee \$75.00

**FNAR 571: Intro to Photography**

Section 401 – Brent Wahl – Tuesday, 9:00am-12:00pm

Section 402 – Gabriel Martinez – Wednesday, 2:00-5:00pm

Section 403 – Gabriel Martinez – Wednesday, 5:00pm-8:00pm

Section 404 – Anna Neighbor – Monday 10:00am-1:00pm

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](mailto:fnarug@design.upenn.edu)

**FNAR 574: Reconfiguring Portraiture**

Brent Wahl

Tuesday, 1:30pm-4:30pm

As methods of representation are constantly shifting, one thing is clear - the photographic portrait is not what is used to be. Exploring both traditional and contemporary methods of portraiture, this class will uncover and discuss the ways in which we perceive each other in imagery, both as individuals and as groups. Throughout the semester, we will consider how portraits deal with truth, physical absence, the gaze, cultural embodiment, voyeurism and the digital persona. This course will build on the combination of perception, technology, and practice. Throughout the semester, students will advance by learning lighting techniques and strategies of presentation - as these core skills will become tools in the execution of project concepts. In tandem with each project, students will encounter and discuss a wide array of photography and writings from the past to the present, in an effort to understand the meanings and psychological effects of freezing the human image in time.

**FNAR 580: Figure Drawing I**

Jotham Malave-Maldonad

Tuesday and Thursday, 9am-12pm

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 585: Performance Studio**

Sharon Haye

Friday, 10am-4pm

This course supports the individual and collaborative production of performance works. As the medium of performance consists of diverse forms, actions, activities, practices and methodologies, the course allows for an open exploration in terms of material and form. Students are invited to utilize technologies, materials and methodologies from other mediums and/or disciplines such as video, photography, writing and sound. In addition to the production component, the course will examine multiple histories of performance through readings, screenings and directed research.

**FNAR 589: Mixed Media Animation**

Joshua Mosley

Tuesday and Thursday, 1:30-4:30pm

Mixed Media Animation is a contemporary survey of stop-motion animation concepts and techniques. Students use digital SLR cameras, scanners and digital compositing software to produce works in hand-drawn animation, puppet and clay animation, sand animation, and multiplane collage animation. Screenings and discussions in the course introduce key historical examples of animation demonstrating how these techniques have been used in meaningful ways. Students then learn how to composite two or more of these methods with matte painting, computer animation or video. Prerequisite(s): FNAR 523 and FNAR 636. Course Fee \$75.00

**FNAR 616: Art and Social Work**

Aaron Levy, Toojo Ghose

Wednesday, 9:00am-12:00pm

How can the arts help us build a more just society? How can the arts transform social structures and systems? Public health crises involving clean water (Flint), police violence (Baltimore), and a lack of economic and educational opportunity following reentry (Philadelphia) make legible the need for a new visual language that critiques these conditions and challenges entrenched structural inequalities. We will engage the work of creative practitioners who are mapping new relationships between art and social justice and directly impacting individual and communal well-being. In so doing, the course seeks to challenge traditional constructions of public health, which often isolate individual histories from their social life and their relation to families, communities, and geographies. Readings will build upon disciplinary perspectives in the arts, humanities, and social policy. Requirements include weekly readings, class participation, and a collaborative final project. The course will meet in the Health Ecologies Lab at Slought Foundation, an arts organization on campus.

**FNAR 622: Big Pictures: Mural Arts**

Jane Golden, Shira Walinsky

Monday, Wednesday 2:00pm-5:00pm

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.

**FNAR 631: Interdisciplinary Studio**

Jackie Tileston

Monday, Wednesday 2:00pm-5:00pm

This course takes an experimental multimedia approach to investigating some of the boundaries in contemporary art making practices. Painting, photography, video, design and sculpture intersect, overlap, and converge in complicated ways. Projects will be designed to explore hybrid forms, collage, space/ installation, and color through a variety of strategic and conceptual proposals as students work towards unique ways of expanding their own work. Weekly readings, critiques, and presentations will be integrated with studio projects. This studio/seminar is appropriate for students at all levels and from all areas of Fine Arts and Design. Prerequisite(s): One previous studio course (such as FNAR 523, FNAR145, FNAR640, FNAR 531 or FNAR 636 or Penn Design course) or permission from the instructor.

**DSGN 635: 3-D Computer Modeling**

Scott White

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

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 & Digital Culture**

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

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

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

Section 404 – David Comberg – Tuesday, Thursday 9:00am-12:00pm

Section 405 – Avery Lawrence – Tuesday, Thursday 1:30pm-4:30pm

Section 406 – Christopher Lawrence – Tuesday, Thursday 5:00pm-8:00pm

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 broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need assistance registering for a closed section, please email the department at [fnarug@design.upenn.edu](mailto:fnarug@design.upenn.edu)

**DSGN 637: Information Design & Visualization**

Mahir Yavuz

Tuesday, 4:30pm-8:30pm

Information design and visualization is an introductory course that explores the structure of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture. Prerequisite(s): FNAR 636. Course Fee \$75.00

**FNAR 640: Digital Photography**

Section 401 – Sarah Stolfi – Monday 10am-1pm

Section 402 – Demetrius Oliver – Monday 2pm-5pm

Section 403 – Demetrius Oliver – Monday 5pm-8pm

Section 404 – Karen Rodewald – Tuesday 10am-1pm

Section 405 – Artie Vierkant – Tuesday 2pm-5pm

Section 406 – Theo Mullen – Tuesday 5pm-8pm

Section 407 – Jamie Diamond – Wednesday 11am-2pm

Section 408 – Jamie Diamond – Wednesday 2pm-5pm

Section 409 – Heather Phillips – Wednesday 5pm-8pm

Section 410 – Brent Wahl – Thursday 10am-1pm

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, and 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](mailto:fnarug@design.upenn.edu)

**FNAR 642: Digital Photography II**

Brent Wahl

Thursday 1:30-4:30

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.

**DSGN 643: Language of Design**

Sharka Hyland

Wednesday, 4pm-8pm

The course will explore the changing relationship during the modern era between design (structure, model, plan of a work of art) and language (metaphor for a system of communication; speech, writing, literature). Our readings and visual presentations will focus on topics in the decorative arts, painting, architecture, typography and visual communication. We will focus on primary sources in order to situate our inquiry in a larger historical context. The discussion will center on claims about the inherent meaning of forms, discuss different roles for design as an ideological statement, as an agent of societal change, and as an idiosyncratic expression. Topics will also include the search for a universal visual language, attempts at bridging the perceived gap between spoken and written language, and the impact of visual form on the meaning of literary texts (particularly when the author has been involved). Students can suggest additional topics related to their field of study.

**DSGN 645: Book & Publication Design**

Sharka Hyland

Monday, 5pm-9pm

Book and Publication Design will focus on the theory and professional practice of designing multi-page publications. Students will analyze formal structures of different types of books-literature and poetry, fiction and non-fiction compilations, illustrated volumes such as art catalogues, monographs and textbooks, and serial editions-discussing both traditional and experimental approaches. The format of the course will be split between theoretical and historical evaluations of book formats by drawing on the Van Pelt Rare Book Collection-and studio time where students will design books with attention to the format's conceptual relationship to the material at hand with a focus on typography and page layout, as well as on understanding production methods of printing and binding. In addition to the conventions of page layout students will examine paratextual elements (title page, practices of pagination and other internal structuring, content lists and indexes, colophons, notes and marginalia, end-leaves, binding, etc.).

**DSGN 646: Advanced 3D Modeling**

Scott White

Friday, 10am-1pm

Advanced 3-D Modeling will give students the opportunity to refine skills in modeling, texturing, lighting and rendering with an emphasis on the evolution of ideas through constant revision based on class critique. Students will use a variety of industry standard software packages, including, but not limited to Maya and Mudbox to compose complex environments. Projects are designed to give students the opportunity to work with original content within a simulated production environment.

**FNAR 654: Printmaking Publications**

Kayla Romberger

Monday, Wednesday 2pm-5pm

This course introduces students to independent publishing and artists' publications through print methods in letterpress, Risograph, and Xerox. The class will focus on the self-published artists' zine/ book as an affordable, accessible, and easily reproducible format for exploring ideas, disseminating artists' work, and collaborating across disciplines. Students will learn a range of skills, including techniques in both mechanized and hand-pulled forms of printed media (Risograph, copy machine, Vandercook letterpress); short-run editions and binding; design and layout; pre-press and print production; and the web as it relates to and supports independent and democratic modes of distribution. Students will learn about and become acquainted with some of the most significant independent publishers working today and throughout history. Students will leave class having completed three individual projects: a 16-page booklet/zine; a carefully considered online

publication, and a final collaborative book designed, developed and published as a class. The course commences with a field trip to New York City's Printed Matter, one of the oldest and most important nonprofit facilities dedicated to the promotion of artists' books, where students will be encouraged to submit a publication by semester's end.

**FNAR 661: Video I**

Section 401 – Sosena Solomon – Monday, Wednesday, 2pm-5pm

Section 402 – Emory Van Cleve – Tuesday, Thursday, 9am-12pm

Section 403 – James Howzell – Tuesday, Thursday, 5pm-8pm

Section 404 – Menklat Dukan – Tuesday, Thursday, 1:30pm-4:30pm

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](mailto:fnarug@design.upenn.edu)

**FNAR 665: Cinema Production**

Emory Van Cleve

Wednesday 10:00am-1:00pm

This course focuses on the practices and theory of producing narrative based cinema. Members of the course will become the film crew and produce a short digital film. Workshops on producing, directing, lighting, camera, sound and editing will build skills necessary for the hands-on production shoots. Visiting lecturers will critically discuss the individual roles of production in the context of the history of film.

**FNAR 667: Advanced Video Projects**

Sosena Solomon

Wednesday 5:00pm-8:00pm

This course is structured to create a focused environment and support for individual inquiries and projects. Students will present and discuss their work in one to one meetings with the instructor and in group critiques. Readings, screenings, and technical demonstrations will vary depending on students' past history as well as technical, theoretical, and aesthetic interests.

**DSGN 678: Interfacing Cultures**

Staff

Monday, Wednesday 6:00pm-9:00pm

This course introduces advanced topics related to contemporary media technologies, ranging from social media to mobile phones applications and urban interfaces. Students learn how to use new methods from interaction design, service design, and social media and work towards prototyping their ideas using new platforms and media. The class will cover a range of topics such as online gaming, viral communication, interface culture, networked environments, internet of things, and discuss their artistic, social, and cultural implications to the public domain. Prerequisite (s): FNAR 634. Course Fee \$75.00



**FNAR 685: Photography and Fiction**

Jamie Diamond

Monday, 2:00pm-5:00pm

In spite of photography's traditional relationship with fact, the medium has been a vehicle for fiction since the very beginning. Fiction and photography encompass a broad range of meanings, from elaborately staging and performing for the camera, to manipulations using digital technology such as Photoshop to construct the work. This class will examine and trace the history of manipulated photography while paying special attention to the complex negotiations between the decisive moment, the constructed tableau, and the digitally manipulated image. There will be a combination of class lectures, studio projects, assigned readings, visiting artists, film screenings, field trips, and class critiques.

**FNAR 720: Topics in Representation**

Anu Mathur, Matthew Neff

Monday, 9:00am-12:00pm

In these advanced representation courses the work extends to new ways of documenting and seeing landscape. These courses are open to all interested School of Design students who have previous drawing experience or have taken foundation studios. Recent topics have been: Traces and Inscriptions (spring 2013), instructors: Anuradha Mathur, Matthew Neff; Landscape Representation (fall annually), instructors: Valerio Morabito; Landscape Drawing (spring annually), instructor: Laurie Olin; Landscape Drawing (spring 2008), instructors: David Gouverneur, Trevor Lee; Shifting Landscapes: A Workshop in Representation (spring 2005, 2004), instructor: Anuradha Mathur; and The Agile Pencil and Its Constructs (spring 2004) instructor: Mei Wu.

**HISTORIC PRESERVATION****HSPV 534-001: Public History: Theory and Practice**

Aaron Wunsch &amp; Laura Keim Stutman

Thursday, 1:30pm – 4:30pm

This graduate seminar explores ways of bringing histories of place before the public. It is required for Preservation students wishing to concentrate in this area (for whom HSPV 600 is a prerequisite) but is relevant to historians, designers, curators, and critical observers of all stripes. More than conventional public history courses, this one focuses on the built environment. It grapples with the tangible ways individuals, communities, and nations remember and forget. It acknowledges that while buildings and landscapes are in one sense simply larger forms of material culture than furniture or other objects, they also “work” differently by dint of being inhabited and publicly encountered, forming de facto frameworks for private and public life. Our coursework foregrounds interpretation and dissemination through multiple media – everything from signage and monuments to websites and exhibits. It is not, however, an introduction to the technical deployment of those media but a chance to reflect critically on their respective strengths and weaknesses in different contexts. In addition to discussing readings in history, historic preservation, sociology, anthropology, geography, and public art, students will design and conduct original research projects involving:

- interviews with Philadelphians from diverse backgrounds about their experiences of various urban landscapes;
- archival research involving architecture, city and regional planning, urban infrastructure, civic culture, and historical commemoration; and
- conceptual design of monuments, installations, public events, and other forms of commemoration.

Field trips will ground class discussions in the present-day fabric of Philadelphia while guest speakers will acquaint us with a variety of institutional and disciplinary perspectives.

**HSPV 538-401/ LARP 738-401: Cultural Landscapes**

Randall Mason

Friday, 9:00am – 12:00pm

The course surveys and critically engages the field of cultural landscape studies. Over the semester, we will explore cultural landscape as a concept, theory and model of preservation and design practice; we will read cultural landscape historiography and creative non-fiction; we will examine a range of types (national parks, community gardens, designed landscapes, informal public spaces), and we will map the alternative preservation, planning and design methods that ground cultural landscape studies practically. Readings, class discussions, and projects will draw on cultural geography, environmental history, vernacular architecture, ecology, art, and writing.

**HSPV 551-001: Building Pathology**

Michael Henry

Friday, 2:00pm – 5:00pm

This course addresses the subject of deterioration of buildings, their materials, assemblies and systems, with the emphasis on the technical aspects of the mechanisms of deterioration and their enabling factors, material durability and longevity of assemblies. Details of construction and assemblies are analyzed relative to functional and performance characteristics. Lectures cover: concepts in durability; climate; psychrometric, soils & hydrologic; conditions; physics of moisture in buildings; enclosure, wall and roof systems; structural systems; and building services systems with attention to performance, deterioration, and approaches to evaluation of remedial interventions.

**HSPV 620-401/ LARP 771-401: American Architecture**

Aaron Wunsch

Wednesday, 9:00am – 12:00pm

According to one line of thought, Americans have never really looked backward. Lured by the promise of a New World whose inhabitants they ignored or exterminated, European settlers fixated on religious liberty and material prosperity, on movement and freedom rather than memory. The result was an amnesiac culture, unmoored from the past, dwelling in the present, and living for the future. A sometimes-related view is that Americans have turned their backs on death. Whether ignoring our graveyards or embalming our loved ones, we have never really come to terms with the passage of time, the processes of decay, the natural cycle that governs creation.

As it turns out, each of these indictments is over 150 years old. During the first third of the 19th century, concerns over bodily security, public sanitation, and the social consequences of urbanization prompted broad discussions about the proper ways of handling the dead. Could their presence be reconciled with the growth of cities? Did corpses of all classes, races, and creeds deserve commemoration and protection? Was the past a personal, a local, or a national matter? Could one speak of “public ancestors”? Did private property and the market economy constitute threats to the deceased or their most reliable safeguards? Was tourism desirable or degrading? And should monument design emphasize form or text, individual biography or collective identity, permanence or a return to nature?

Related questions now animate the fields of historic preservation and public history. But the roots of such thinking in a specific historical moment are significant and we will touch on them in our class. The New World quest for fixity in place and time – for buildings and as well as for bodies – dates to about fifty years after the Revolution. One manifestation was the rise of the American urban cemetery (as distinct from the churchyard and the potter’s field). Since cemeteries were among the first places where the values of historic preservation were articulated, we have a special opportunity to examine present-day practices and precepts in critical-historical perspective. Surveying American burial places and attitudes towards death from the colonial era to our own, we will apply insights from our readings and discussions to modern-day preservation problems. Preservation of the Historic American Cemetery requires that preservation professionals have skills in historical research, documentation and significance determination and facilitation of many competing interests, and sometimes, difficult

stakeholders. Tours and guest lectures will help us understand the challenges posed by particular sites and conditions. We will take advantage of our proximity to Woodlands Cemetery (1840) by exploring that site in depth.

**HSPV 621-301: Heritage and Social Justice**

Randall Mason

Monday, 2:00pm – 5:00pm

How do historic preservation and other design and humanities professionals contribute to more equitable and just societies? How can our work be organized to result in greater equity, access and social justice? This seminar will explore connections between heritage, historic preservation (and related design, planning and artistic practices) and the pursuit of social justice. Our investigations will focus on both conceptual and theoretical constructions (how we think about built heritage and social change; how we conceptualize social justice) and practical examples of advancing social outcomes through preservation and design. We'll draw on work by: geographers, anthropologists and other social scientists and theorists; historians; public intellectuals; design practitioners; heritage organizations; artists; and more. Subjects will include public interest design, creative placemaking, public art, memorialization, and methods of practice and institutional organization; cases will be drawn from the US and abroad. The course will progress through a series of weekly topics, often including guest practitioners and scholars. Students will have significant agency in helping flesh out the topics and cases; final projects (individual and group) will be envisioned as a statement (in the form of a book or exhibit) of how social justice concerns have reshaped practice and how they could reshape our fields in the future.

**HSPV 625-001: Preservation Economics**

Donovan Rypkema

Tuesday, 9:00am – 12:00pm

The primary objective is to prepare the student, as a practicing preservationist, to understand the language of the development community, to make the case through feasibility analysis why a preservation project should be undertaken, and to be able to quantify the need for public/non-profit intervention in the development process. A second objective is to acquaint the student with measurements of the economic impact of historic preservation and to critically evaluate "economic hardship" claims made to regulatory bodies by private owners.

**HSPV 671-001: Historic Preservation Law**

Anne Nelson

Friday, 2:00pm-5:00pm

Introduction to the legal mechanisms used to protect historic resources in the built environment, focusing on the legal principles underlying preservation laws, including constitutional issues relating to governmental regulation of real property, as well as federal, state and local historic preservation laws.

**HSPV 703-401/CPLN 773-401: Topical Seminar, Urban Regeneration in Americas: Conservation & Development of Urban Heritage Areas**

Eduardo Rojas

Tuesday, 2:00pm-5:00pm

This advanced topic seminar will focus on the challenges confronted by the conservation and urban planning professions in turning the urban heritage into a social and economic development resource for cities in developing countries. The preservation of the urban heritage is moving to a new paradigm of intervention responding to: a growing interest in communities for preserving their intangible and tangible urban heritage; rising development pressures on historic neighborhoods; the generalization of adaptive rehabilitation as a conservation strategy; and recent international agreements calling for expanding the role of the urban heritage in the social and economic development of the communities. This is a

problem that is in the cutting edge of the research and practice of heritage conservation and urban planning and has conservation, planning and design implications making it ideally suited to a multi-discipline seminar approach.

The course is modeled on successful 1-CU spring seminars conducted in recent years—the Gordion Site Planning Studio (2011), Parks for the People (2012), and the Regeneration of Historic Areas in the Americas (2012, 2014, 2016, 2018)—that attracted students from across the School and fit easily with core studios and thesis projects. Students from multiple departments are encouraged to participate in the course; enrollment will be kept to about 12.

The course will combine seminar and field study methodologies in ways that they support each other. The knowledge acquired through the seminar work will be put to use in a field study exercise whose objective is to allow the students to work on topics of their interest and pursue research or urban development and heritage conservation interventions for expanding the contribution of the historic center of Cartagena in Colombia to the social and economic development of the city.

**HSPV 738-301: Conservation Seminar: Wood**

Andrew Fearon

Thursday, 6:00pm - 9:00pm

Prior to the twentieth century, most structures found in the built environment relied upon wood as a primary material for both structural members and decorative features. An understanding of the physical properties as well as the historic application of this organic material provides the basis for formulating solutions for a wide spectrum of conservation issues. As the scope of preserving wooden structures and wooden architectural elements is continually broadened, new methods and technology available to the conservator together allow for an evolving program - one that is dependent upon both consistent review of treatments and more in-depth study of craft traditions. This course seeks to illustrate and address material problems typically encountered by stewards of wooden cultural heritage - among them structural assessment, bio-deterioration, stabilization and replication techniques. Through a series of lectures and hands-on workshops given by representative professionals from the fields of wood science, conservation, entomology, engineering, and archaeology, theoretical and practical approaches to retaining wooden materials will be examined with the goal to inform the decision-making process of future practicing professionals.

**HSPV 740-301: Conservation Seminar: Finishes**

Catherine Myers

Wednesday, 2:00pm – 5:00pm

The seminar will advance students' knowledge of and skills at researching, analyzing and interpreting historic architectural finishes. Lectures, demonstrations, hands-on exercises, case studies, and site visits will consider the history, technology, analysis, deterioration, and treatment of historic finishes. Guest lecturers will enlarge the subject with discussion and demonstrations of archival research of finishes, advanced methods of scientific analysis and presentation of a long-term project to analyze and conserve historic finishes at the US Treasury Building (Robert Mills). The course will also address historic plaster with a guest lecture and demonstration of plaster materials, application, and casting for ornamental plaster. We will make and apply paints and other finishes in class. A visit to the decorative arts studio and Philadelphia sites displaying decorative painting will complement lectures and assignments. Bartram's Garden, the eighteenth-century home of botanist John Bartram in West Philadelphia, will serve as a case study and subject for the final assignment.

**HSPV 747-401 / ANTH 508-401: Conservation and Management of Archaeological Sites and Landscapes**

Frank Matero & Clark Lowden Erickson

Tuesday, 9:00am – 12:00pm

This seminar will address the history, theories, principles, and practices of the preservation and interpretation of archaeological sites and landscapes. The course will draw from a wide range of published material and experiences representing both national and international contexts. Topics will include site and landscape documentation and recording; site formation and degradation; intervention strategies including interpretation and display, legislation, policy, and contemporary issues of

descendent community ownership and global heritage. Depending on the site, students will study specific issues leading toward the critique or development of a conservation and management program in accordance with guidelines established by ICOMOS/ ICAHM and other official agencies.

## **LANDSCAPE ARCHITECTURE**

### **LARP 710-001: Implementation of Urban Design**

Candace Damon & Alex Stokes

Tuesday, 5:00-8:00pm

*This course is a requirement for students enrolled in the Certificate of Urban Design program.*

This class focuses on the various ways in which urban design is affected by the opportunities and constraints associated with market conditions, development feasibility, political and community dynamics and the incentives and restrictions applied by the public sector to influence development. The premise of the class – and its organizing structure – is that urban development of lasting value requires all of visionary leadership, great design, a demonstration of financial feasibility, and a narrative that establishes value for diverse stakeholders. The class will walk students through the process of proposing and refining a redevelopment plan for a parking lot located in the vicinity of the University of Pennsylvania. Students will be tasked with demonstrating the feasibility of their redevelopment plan from a market, financial, community and public policy perspective. Students will further their understanding of key concepts that drive urban transformation through case studies, presentations, class debates and conversations with leading design, real estate and public sector professionals from the Philadelphia region and beyond. *This course may open to other interested Weitzman School students if there is space and with the permission of the instructor.*

### **LARP 720-401 / FNR 720-401: Terrains of Wetness: a workshop in printmaking and making Landscape**

Anuradha Mathur & Matthew Neff

Monday, 9:00am-12:00pm

This workshop will explore techniques in printmaking (screen printing, cyanotype, intaglio, etc.) as well as alternative printing techniques to engage time and materiality in landscapes. Rather than pictorial depiction, our interest will be in observing processes of transformation in the field and engaging processes of printmaking in the studio in an analogous relationship. We will move towards the iterative and serial, rather than produce singular pieces of work. Students will develop themes and processes that cultivate what we will refer to as a watery imagination. The observation and negotiation of chance events, as much as the calibrated deployment of known processes of transformation in printmaking will construct a dialogue on making landscape. Besides class time, students would be expected to advance their work in the printmaking studios at other designated times. Each student will also need to pay a nominal lab fee for certain materials and supplies provided.

### **LARP 734-401: Designing a Green New Deal: From Concept to Program**

Billy Fleming & Daniel Cohen

Wednesday, 2:00-5:00pm

This advanced social science and design seminar is about mobilizing expert knowledge to develop transformative policy ideas to make the Green New Deal come alive. We'll look at cutting edge social science and design scholarship on the problems we're trying to solve, and the successes and failures of past efforts at transformative policy. And we'll focus in particular on the built environment. How might a Green New Deal make the physical changes to our infrastructures, homes, energy landscapes, transportation systems, public recreation amenities, care facilities, and more, in ways that slash carbon

emissions, increase resiliency, and abolish inequalities of race, class, gender, and nation? That's not a rhetorical question: in this class, we'll assemble knowledge, get into teams, and come up with concrete proposals.

**LARP 741-401: Topics in Digital Media: Modeling Geographic Space**

Dana Tomlin

Wednesday, 2:00-5:00pm

The major objective of this course is to explore the nature and use of raster-oriented geographic information systems (GIS) for the analysis and synthesis of spatial patterns and processes. In contrast to the spring semester course, CPLN 666 – Modeling Geographical Objects, LARP 741 is oriented more toward the qualities of geographical space itself (*e.g.* proximity, density, or interspersed) than the discrete objects that may occupy such space (*e.g.* water bodies, land parcels, or structures).

The course focuses on the use of GIS for “cartographic modeling,” a general but well-defined methodology that can be used to address a wide variety of analytical mapping applications in a clear and consistent manner. This is done by decomposing data, data-processing capabilities, and data-processing control techniques into elemental components that can then be recomposed with relative ease and with great flexibility. The result is what amounts to a “map algebra” in which cartographic layers for individual characteristics such as soil type, land value, or population are treated as variables that can be transformed or combined into new variables by way of specified operations. Just as conventional algebraic operations (such as adding, subtracting, multiplying, or dividing) might be combined into a complex system of simultaneous equations, these cartographic operations (such as superimposing one map onto another, measuring distances or travel times, characterizing geographic shapes, computing topographic slopes and aspects, determining visibility, or simulating flow patterns) might be combined into a model of soil erosion or land development potential. Open to all Weitzman School graduate students.

**LARP 745-401: Topics in Digital Media: Advanced Topics in GIS**

Dana Tomlin

Thursday, 9:00am-12:00pm

This course offers students an opportunity to work closely with faculty, staff, local practitioners, and each other on independent projects that involve the development and/or application of geographic information system (GIS) technology. These projects often take advantage of resources made available through Penn's Cartographic Modeling Lab [<http://www.cml.upenn.edu>]. The course is organized as a seminar: a series of weekly meetings and intervening assignments that ultimately lead to the implementation and presentation of student-initiated projects. Early in the semester, each student selects a term project dealing with one particular topic in the field of GIS, broadly defined. Topics may range from the basic development of geospatial tools and techniques to practical applications in any of a variety of fields. Projects may be completed working either as individuals or in small groups. Ultimately, they presented in the form of in-class briefings and a final publication. Each week's class meeting generally involves a lecture and/or discussion engaging local GIS practitioners and relating to student projects, advanced techniques, or current GIS practice. This course is open to all students who can demonstrate sufficient experience, expertise, and/or initiative to pursue a successful term project.

**LARP 750-001: Topics in Construction, Horticulture and Planting Design: Detailing in Landscape Design**

Lindsay Falck &amp; Abdallah Tabet

Thursday, 9:00am-12:00pm

What is the role of the detail in landscape architecture? What makes a good detail, technically and conceptually? How do we understand "detailing" as a process? The detail is the moment of intersection between the conceptual and the practical, born out of the designer's effort to merge an idealized vision with a set of imposed – and often conflicting – parameters and constraints. For some, the detail may contain the essence of a project, a representation of the idea made manifest. Yet it may also be the reason the whole thing falls apart.

Through case studies of exemplary projects, lectures, discussions, and design exercises involving drawing, modeling, and fabrication at a range of scales, this seminar course will explore detailing as an idea, as a process, and as a vital component of



design practice and construction methodology. This course offers students the opportunity to develop a strong grounding in the logic and language of details, supporting continued inquiry and critical engagement with design over the course of a career. *This course is open to students in other departments if there is space.*

**LARP 750-002:** Topics in Construction, Horticulture and Planting Design: Planting Design

Kira Appelhans & Misako Murata

Friday, 9:00am-12:00pm

As we enter the era in which climate change has begun to have a noticeable impact on our natural environment, the role of plants in design is ever more pressing. This seminar explores the potential role and deployment of plants in landscape architecture from the practical and instrumental to the surreal and fantastic. Historic planting design practices are the starting point for this course which incorporates research, design, and explorative representation. Due to the adaptive nature of plant life, plants have been altered and molded to satisfy a variety of human desires. These advancements, however, are rarely discussed within the discipline of landscape architecture. This course investigates a possible future through the design of a new plant. Driven by current climatic and social issues, this reimagining of a plant species explores new performative and aesthetic potentials of novel plant life. Through the development of a planting plan for a past studio project, students learn to visualize the spatial, cultural, and experiential potential of plant material and are challenged to critically and playfully reimagine and transform the main medium of landscape architecture and expand its range of expression. *This course is open to students in other departments if there is space.*

**LARP 756-001:** Arboretum Management II: Evaluating Public Gardens

Anthony Aiello

Tuesday, 1:30-4:30pm

This interdisciplinary course looks at public gardens as a whole, studying these public institutions and their performance in the four major services they undertake: research, horticultural display, conservation and education/outreach. Students, of any level or discipline, begin the course by learning what arboreta and botanic gardens are, how they function, and what role they fill in our society through a series of lecture sessions at the Morris Arboretum. For the remainder of the semester, the students take that knowledge into the field to apply what they have learned and evaluate some of the many public gardens in ‘America’s Garden Capital,’ the Philadelphia region, with expert instructors from the Morris Arboretum as guides. Course assessment will be based on one exam, and a series of essays pertaining to their garden evaluations. Garden evaluations and the written work can be tailored to a particular subject of interest to a student, if pertinent within the public garden realm.

*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 or to other Philadelphia area public gardens as required, for class each week.* For further information about the course, students may contact Anthony Aiello ([aiello@upenn.edu](mailto:aiello@upenn.edu)).

**LARP 760-001:** Topics in Ecological Design: Large-Scale Landscape Reclamation Projects

William Young

Friday, 10:00am-1:00pm

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 771-401: Seminar in American Architecture: The American Urban Cemetery**

Aaron Wunsch

Wednesday, 9:00am-12:00pm

An examination of a specific topic related to the history of American architecture and planning. Following introductory lectures, students participate through detailed reports and informal discussion. The topic under investigation varies each semester the seminar is offered.

**LARP 780-001: Topics in Theory & Design: Forest, Grove, Tree: Planting Urban Landscapes**

Sonja Duempelmann

Monday, 9:00am-12:00pm

Discussions about the urban forest and tree canopy, carbon sequestration, sustainability, and tree adoption programs are becoming more prevalent by the day. In this course we will look at the evolution of this green heritage in our designed landscapes. The course deals with tree landscapes of a variety of scales and explores the different meanings and functions that these landscapes and their designs have embodied at different moments of time. From a single tree to tree rows, clumps, grids, quincunx, groves, woods, and forests, trees have been dominant features in our landscapes for millennia. Trees have been planted and uprooted to stake out territory and create place, and they have been used to forge and obscure identities. They have provided sustenance and essential building and design materials. They have been the origin and subject of myths and legends, and of war and peace. Trees have inspired artists, musicians, architects, designers, gardeners, and scientists, and they are what many designed landscapes are made of. Questions that will be addressed include the following: what is the relationship between trees and cities, planting and building, forestry and urbanization? What role have trees played in the definition of nature conservation and preservation? How has the preoccupation with trees contributed to scientific advancement? What role have trees played in fostering local, regional and national identities, in political diplomacy, and how have they promoted xenophobia? How have they been used to create different types of tree landscapes like forest gardens, arboreta, nurseries, sacred groves and woodland cemeteries, and how have trees been represented in various media and at different times? Studying trees in time and place offers the opportunity to address these and many other questions and topics that straddle landscape, environmental, forest, and cultural history, and that connect the human with the non-human, the local with the global, as well as micro- and macro histories. The course will include guest lectures, site visits, and seminar discussions that will build upon the course readings. Students will contribute to a weekly course blog and work on a research paper related to the course content that will be presented in class. Enrollment is limited to 24 and will be open to MLA students only.

**LARP 780-002: Topics in Theory & Design: Designing with Risk**

Matthijs Bouw

Tuesday, 1:30-4:30pm

This research seminar investigates designing with risk, particularly as it relates to the problem of climate adaptation and resilience. The role design can have in managing risk is to a large extent uncharted territory. Our aim is to explore the potential roles and tools of design as a means of responding to risk in spatial, infrastructural and policy projects for resilience at a variety of scales.

In collaboration with faculty, students and thinkers in other disciplines, we will develop a body of knowledge about risk and how it relates to streams of intellectual energy around resilience, and we will identify design tools and strategies to manage both climate risks and project risks. We will use the research seminar to collectively scope the openings where design can have the greatest agency (in either reducing risk or leveraging the potential for change that risk and instability create). These will be opportunities for further research, design projects, studios, investment or other intervention.

Parallel to the seminar, a symposium and a workshop will be organized in conjunction with Rebuild by Design, NYU/Institute for Public Knowledge and Columbia University. Open to all Weitzman School graduate students.

**LARP 780-003: Topics in Design & Theory: Landscapes of Extraction and Sequestration**

Nick Pevzner

Friday, 1:30-4:30pm

Landscapes of energy extraction and carbon sequestration may be located far from one another, yet they are closely connected through the dynamics of the carbon economy, the legacy patterns of territorial power and control, and of the cultural narratives that we tell. This seminar will delve into historic and emerging energy infrastructure and its deeply-held cultural narratives, unpack the politics of carbon markets and carbon trading, and analyze some promising carbon sequestration practices and their cultural landscapes.

The first part of the class will look at how the large-scale infrastructure projects built to enable extraction have long acted as powerful organizers of territory: how energy infrastructure projects have historically been used to project power, extract value, and reshape patterns of labor and settlement — whether it's the canals that were built to support coal extraction in Pennsylvania, the geography of oil pipelines and oil ports, or emerging kinds of renewable energy that continue to carry old legacy patterns of power.

The second half — landscapes of sequestration — will survey a range of landscape strategies with the potential to “draw down” the atmospheric carbon pool — from new technological approaches, to new kinds of agriculture and forestry management, to coastal mangrove restoration and the farming of coastal “blue carbon.” We will investigate the ecological principles behind these strategies, and critically analyze the spatial and cultural effects that these practices can have.

From carbon markets to carbon capture, these practices are not neutral: this seminar will dig into the contested narratives of how carbon should be managed, and critically interrogates the spatial choices that will underpin the energy system of the future.

**HSPV 538-401/LARP 738-401: Cultural Landscapes**

Randall Mason

Friday, 9:00am-12:00pm

This course surveys and critically engages the field of cultural landscape studies. Over the semester, we will explore cultural landscape as a concept, theory and model of preservation and design practice; we will read cultural landscape historiography and creative non-fiction; we will examine a range of types (national parks, community gardens, designed landscapes, informal public spaces), and we will map the alternative preservation, planning and design methods that ground cultural landscape studies practically. Readings, class discussions, and projects will draw on cultural geography, environmental history, vernacular architecture, ecology, art, and writing.

**Certificate in Urban Design Courses****LARP 710-001: Implementation of Urban Design**

Candace Damon, Alex Stokes

Tuesday 5:00-8:00pm

*This course is a requirement for students enrolled in the Certificate of Urban Design program.*

This class focuses on the various ways in which urban design is affected by the opportunities and constraints associated with market conditions, development feasibility, political and community dynamics and the incentives and restrictions applied by the public sector to influence development. The premise of the class — and its organizing structure — is that urban development of lasting value requires all of visionary leadership, great design, a demonstration of financial feasibility, and a narrative that establishes value for diverse stakeholders. The class will walk students through the process of proposing and refining a redevelopment plan for a parking lot located in the vicinity of the University of Pennsylvania. Students will be

tasked with demonstrating the feasibility of their redevelopment plan from a market, financial, community and public policy perspective. Students will further their understanding of key concepts that drive urban transformation through case studies, presentations, class debates and conversations with leading design, real estate and public sector professionals from the Philadelphia region and beyond. *This course may open to other interested PennDesign students if there is space and with the permission of the instructor.*

**LARP 781-401: Contemporary Urbanism**

David Gouverneur

Wednesday, 2:00-5:00pm

This course will expose students to a wide array of case studies in Planning, Urban Design, and Landscape Architecture. They include: notions of sustainable development, the interplay between open space and built form, the rehabilitation of existing areas as historic districts, commercial corridors, and the improvement of squatter settlements. Also, it will focus on city expansions and new towns, housing, mixed-use developments, and areas of new centrality. The program will address as well territorial planning, the improvement of open space systems, and site-specific interventions of parks, plazas, streetscape and gardens. Cases will provide the proper ground for analysis and interpretation of issues related to the design and implementation of "good" landscape and urban form. Class discussions will be complemented with short design exercises. We will also enjoy the presence of outstanding visiting lecturers, who will share with us cutting-edge information, derived from their professional practice and research. *Registration limited to students in the MLA 602 level; students in the Certificate in Urban Design program; and a limited number of MLA students; other Weitzman School graduate students must seek permission of the instructor.*

**DEPARTMENTAL CONTACT INFORMATION:**

- Architecture: [arch@design.upenn.edu](mailto:arch@design.upenn.edu)
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DETAILED INFORMATION ON REGISTRATION IS AVAILABLE ONLINE AT: [COURSES AND REGISTRATION](#)

QUESTIONS/ CONCERNS REGARDING COURSE REGISTRATION: [DES-STUDENTSERVICES@DESIGN.UPENN.EDU](mailto:DES-STUDENTSERVICES@DESIGN.UPENN.EDU)