



*Spring 2019 Elective Course Offerings ~ as of 12/18/18*

**LANDSCAPE ARCHITECTURE**

LARP 720-401: Topics in Representation: Printmaking and Making Landscape, Terrains of Wetness

Anuradha Mathur, Matthew Neff

Monday, 9am-12pm

This workshop will explore techniques in printmaking (screen printing & intaglio) 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. Enrollment will be by the permission of the instructors only.

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

Dana Tomlin

Wednesday, 2pm-5pm

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 interspersions) 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 PennDesign graduate students.

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

Dana Tomlin

Thursday, 9am-12pm

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, Abdallah Tabet

Thursday, 9am-12pm

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: Plant Futures

Kira Appelhans, Misako Murata

Friday, 1pm-4pm

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, 1:30pm-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, 10am-1pm

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 PennDesign graduate students.*

LARP 780-001: Topics in Theory & Design: WORK - Aspects and Topics in Landscape Architecture

Laurie Olin

Monday, 9am-12pm

What landscape architects actually do: this course will examine the nature of professional practice, its projects and typologies in the past century and today. It will examine a diversity and particular issues of a number of project types, their genesis and production from the instructor's experience if the past 50 years of practical experience: the clients, the politics, the design and craft, and their production and construction. It will also examine the nature of collaboration with clients and allied professionals, largely architects and engineers. This is not a "How to" pro-practice course, nor a history, but rather an investigation of the nature of work as it has been evolving in the field as applied to a number of problem types, and aspects that are common or particular to each. Specific project typologies presented will include: private gardens and estates; public parks – large and small; campus planning and design; civic spaces and plazas; community planning and development, redevelopment, and design; institutional grounds and settings; memorials and monuments; corporate and commercial facilities; infrastructure (highways, roads, streets, trails, harbors, water systems, etc); regional and large district plans for resources, development, resilience; miscellaneous such as tourist, recreational, agricultural facilities. *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, 1:30pm-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 PennDesign graduate students.*

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

Nicholas Pevzner

Tuesday, 10am-1pm

This seminar is organized into two halves: landscapes of extraction, and landscapes of sequestration.

The first half will investigate the landscape, cultural, and political impacts of large-scale energy infrastructure development, and the deeply-held cultural narratives that accompany this process — how such projects have historically been used to extract value, project power, and reshape patterns of labor and settlement. Seminal examples of regional integrated infrastructure planning, from the TVA and Columbia River dam projects in the mid-20th century, to Germany and Netherlands' program of offshore wind development, to more recent programs of renewable energy development in China and India, among others, will inform our analysis, and will supply lessons that can inform design and planning for the current energy transition. The second half — landscapes of sequestration — will survey a range of landscape strategies with the potential to reduce or "draw down" the atmospheric carbon pool — from novel agricultural and forestry practices, to the locking up of soil organic carbon through "carbon farming," to the capture of "blue carbon" through coastal ecosystem management, among others. Students will investigate the ecological principles behind these strategies, and critically analyze the spatial and cultural effects that these practices can have, using case studies of real sequestration landscapes. We will question the effects of carbon markets and carbon trading schemes on local economies and power

relationships, asking the question, How do decarbonization practices avoid becoming yet another mechanism of exploitation of developing countries by wealthy global powers? For both halves, students will develop methods for critically diagramming the socio-spatial impacts, landscape effects, ecosystem feedbacks, and political-economic contexts of case study examples, and then apply these lessons to prospective sites of extraction and sequestration. *Open to all PennDesign graduate students.*

### **Certificate in Urban Design Courses**

LARP 710-001: Implementation of Urban Design

Candace Damon, Alex Stokes

Tuesday 5pm-8pm

*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

Richard Weller, David Gouverneur

Wednesday 2pm-5 pm

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 PennDesign graduate students must seek permission of the instructor.*

### **CITY PLANNING**

CPLN 550: Introduction to Transportation Planning

Erick Guerra

Tuesday and Thursday, 10:30am-12pm

Survey of the technological and design aspects of urban transportation systems and land use patterns. Covers facilities operations, congestion, environmental concerns and policy debates revolving around mobility issues at the federal, state, and metropolitan levels.

CPLN 628, Migration & Development,

Domenic Vitiello

Tuesday, 9-12pm

This course examines the relationships between human migration and community, social, and economic development around the world. After a brief introduction to histories and theories of migration and development, our major themes include:

- Local revitalization, labor and housing markets, workforce and enterprise development;
- Diaspora-led transnational development, including remittances, hometown and county associations, and transnational advocacy and community organizing;
- The work of institutions, governments, and private sector firms in sending and receiving nations that influence migration and development.

Readings are drawn from a variety of social sciences, planning and development studies. Guests from local and transnational development organizations will visit the class. Assignments include short papers on the readings and a research paper or project designed by each student in consultation with the instructor.

CPLN 630 Innovations in Growth Management

Tom Daniels

Tuesday, Thursdays 12-1:30pm

The US population is expected to grow by more than 75 million by 2051. This course evaluates the tools and techniques for managing growth in America, especially to control sprawl in metropolitan regions. The course analyzes the form and functions of the central cities, suburbs, edge cities, ex-urbs, and megaregions. Federal, state, and local programs that influence metro change are evaluated. Regional planning approaches are analyzed in case studies.

CPLN 730, Sustainable Cities

Allison Lassiter

Tuesday, Thursdays 9-10:30am

This reading-intensive discussion seminar reviews the history and future of sustainable urban development, primarily focusing on cities in the United States. We examine the theory behind the sustainable cities movement, charting the evolution from green cities to smart growth and landscape urbanism. We critically evaluate contemporary examples of sustainability planning by focusing on major environmental resources and movements within sustainability discourse. We discuss sustainability initiatives driven by regulation, incentives, technological advances, and social norms. Finally, we ask what sustainability means today.

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

Matthew Miller

Wednesdays, 2-5pm

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.

## **HISTORIC PRESERVATION**

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

Aaron Wunsch

Thursday, 1:30 PM-4:30 PM

This seminar is required for students wishing to concentrate on the Public History of the Built Environment while pursuing an MS in Historic Preservation. It builds on skills developed in HSPV 521 (American Architecture), HSPV 600

(Documentation), and HSPV 606 (Site Management); only HSPV 600 is a prerequisite. Unlike many public history courses, this one focuses on interpretation of the built environment. While proficiency in archival research is required, an understanding of form and chronology in American architecture is helpful. Fundamentally, this course is about community, memory, and their relationship to built form. As such, it examines oral history methodology and includes readings in sociology and ethnography. It acknowledges that while buildings and landscapes are in one sense simply larger forms of material culture than furniture or other movable objects, they also “work” differently by dint of being inhabited, occupied, and publicly encountered, forming de facto frameworks for private and public life. More than other courses, this one grapples with interpretation and dissemination— everything from signage and monuments to websites and exhibits. It is not, however, a tutorial in the use of those media so much as a chance to reflect critically on their strengths and weaknesses in different contexts.

### **HSPV 551-001: Building Pathology**

Michael Henry

Friday, 2:00 PM-5:00 PM

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. Prerequisite(s): HSPV 555 or one technical course in architecture.

### **HSPV 625-001: Preservation Economics**

Donovan Rypkema

Tuesday, 9:00 AM-12:00 PM

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 638-301: Photography and the City: The Visual Construction of Urban and Suburban America**

Francesca Ammon

Wednesday, 9:00 AM– 12:00 PM

This seminar explores the intersecting social and cultural histories of photography and the urban and suburban built environment. No prior background in photography is necessary. Since its inception in 1839, photography has provided a critical means for representing urban space. The medium has helped to celebrate the great structures of the industrial city, reform cities from the Progressive Era through urban renewal, critique expanding postwar suburbs, and document change in the post-industrial and post-disaster city. In all of these ways, the photograph has been both a reflection of the city and an agent of its transformation. Our subjects each week will include individual images and larger photographic archives. We will discuss not only the creation of these images, but also their application in design and planning discourse. Although technical training in photography is not expected, students will have a chance to construct a photo-essay of their own. Through our investigations, we will collectively explore how photography's dual documentary and aesthetic properties have shaped the city—physically, socially, and culturally.

### **HSPV 713-301: Professional Practice for Historic Preservation**

Dorothy Krotzer

Thursday, 9:00 AM-12:00 PM

This course is intended to introduce students to the professional practice of historic preservation and, more specifically, how preservation professionals fit into the larger fields of design and construction. It will expose students to the types of roles they may play once they enter the professional world, as well as the skills and knowledge they will be expected to have. Through a series of lectures, in-class exercises, and case studies of current or recently completed preservation

projects, students will learn how projects are developed from inception through design and construction. There will be discussion of some of the inherent challenges in designing projects that involve existing historic buildings, as well as how architectural conservation is incorporated into such projects. It will also discuss the phasing of and "players" involved with typical preservation projects. A significant portion of the course will be dedicated to preservation project management from the perspectives of the architectural conservator, the architect and the contractor--from writing a proposal to managing a complex project to project delivery methods. The course should be of particular interest to architects who anticipate being involved with historic buildings, architectural conservators, as well as planners and individuals interested in managing historic sites that might undergo preservation projects.

### **HSPV 741-301: Topics in Preservation Technology: Litho-Mania**

Frank Matero

Tuesday, 9:00 AM– 12:00 PM

Nearly every culture in the Old and New World has made use of natural stone for its buildings and monuments, whether as found rubble or ledge rock, cut and dressed load-bearing dimensional stone, or thin veneer cladding on a brick, steel or concrete frame. There is an abundant variety of stone in the United States and virtually every type of fissile rock has been put to use for buildings and monuments. The use of native and imported stone as the material of choice reached its zenith at the end of the nineteenth century. Through the creative talents of American architects, engineers, and artists who took advantage of and promoted the extensive variety, availability and relatively low cost of domestic and imported stone, masonry buildings and monuments proliferated giving rise to what critics termed a national 'lithomania'. This seminar will offer an in depth study of the stone employed for building and sculpture in the United States. Utilizing Penn's newly acquired Vermont Marble Company (VMC) archives and vast stone collection, the class will consider the 'culture of stone' through a cross-disciplinary study of its historical, aesthetic, and technical aspects as they pertain to design and conservation practice including extraction, finishing, and installation for masonry building and monument design and construction. The course will also utilize a digital humanities approach by including instruction in the methods, formats, and platforms applicable for web-based dissemination of the research produced. HSPV 741 is open to ALL interested students in preservation, landscape architecture, architecture, architectural history, fine arts, and archaeology.

### **ARCHITECTURE**

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

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

**ARCH 712-001: Topics in Arch Theory II: Designing for Equity**

Aaron Levy

M 9:00-12:00

How has architecture changed, if at all, in the fifty years since the assassination of Martin Luther King Jr. in 1968? How have the demands for equity and inclusion raised in Whitney M. Young Jr.'s landmark address to the AIA convention that year been realized? This seminar will engage these provocative questions by surveying key debates about social equity in architectural theory from 1968 to the present. We will discuss histories of architectural complicity and entanglement and study how design often exacerbates racial and socio-economic injustice. We will also engage current design practices for social intervention, and debate our responsibility to design for equity. Finally, the seminar will address challenges facing the next generation of designers and educators, including socio-economic inequality, labor rights, urbanization, migration, and climate change. The seminar will equip students with theoretical competency in Marxist, Post-structuralist, and postcolonial schools of thought. Throughout, we will engage the writings of architectural critics such as Mike Davis, Fredric Jameson, Andrew Ross, Eyal Weizman, Peggy Deamer, Keller Easterling, and David Harvey, as well as seminal essays by theorists such as Michel Foucault, Guy Debord, and Giorgio Agamben. Students will be expected to actively contribute to class discussion and complete a draft midterm paper and final paper.

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

**ARCH 712-002: Topics in Arch Theory II: Life on the Border: The Architecture of the Trans-boundary Space**

German Pallares

R 1:00-4:00

This course considers the architecture that makes the borders of cities, regions, and nations. Case studies central to this course will include: the border shared between México and the United States, the Demilitarized Zone (DMZ) of North-South Korea, and the land dividing Palestinian and Israeli territories. Other examples, like the Berlin Wall, will be used as complimentary analogues. The seminar will critically assess how architecture has been leveraged to facilitate state and institutional control of space; but also, how architecture and its projective tools like maps, plans, signage, and patterns of use can act as operative forces for alienation, segregation, division, violence and surveillance, as well as the post-border potential of architecture for connection, communication, and collaboration.

**ARCH 712-003: Topics in Arch Theory II: Articulate Building Envelopes: Construction and Expression**

Ariel Genadt

R 2:00-5:00

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.

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

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

Eduardo Rega Calvo

R 9:00-12:00

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. *Architecture 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 *Architecture of Refusal* platform which brings to focus the emancipatory spatial practices of social movements that oppose the neoliberal oligarchical status quo.

**ARCH 712-401: Topics in Arch Theory II: Baroque Parameters**

Andrew Saunders

T 1:00-4:00

This course will provide an overview of the debate surrounding the term Baroque and its contemporary implications. The term Baroque is the subject of many debates ranging from its etymological origin, to disputes on the emergence of an aesthetic "style" post Council of Trent in the seventeenth century by historians such as Heinrich Wölfflin, and the more current and most broad application of the term as a recursive philosophical concept suggested by Gilles Deleuze to "Fold" through time. Although illusive and as dynamic as the work itself, students will become familiar with how the term Baroque has been associated with specific characteristics, attitudes and effects or more specifically the architectural consequences it has produced.



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

Andrea Hornick

R 1:00-4:00

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.

**\*\*NEW COURSE – space is limited\*\*****ARCH 718-001: History and Theory of Architecture and Climate**

Daniel Barber

W 9:00-12:00

This seminar will explore the history of buildings as mechanisms of climate management, and the theoretical and conceptual frameworks that pertain. From the 1930s to the 1960s, before mechanical systems of heating, ventilation and air conditioning (HVAC) were widely available, the design of a building – including its relationship to site, use of shading devices and other systems, as well as familiar modernist tropes of open plans and an emphasis on volume – was central to managing seasonal and diurnal climatic variation. We will explore the history of these climate design strategies, and consider their significance to both the globalization of modern architecture and the conceptual frameworks that allow for discussion of design to resonate to changing geopolitical and geophysical conditions.

**ARCH 724-001: Technology in Design: The Mathematics of Tiling in Architectural Design**

Joshua J. Freese

T 3:00-6:00

Repetition and difference in geometric tiling patterns produce visual complexity, intricacy, economy and articulation. From textiles and ceramics to architectural design, the tradition of tiling has culled from mathematical systems that inscribe two- and three-dimensional geometric conditions, ultimately yielding cultural effects that are unique to their time. By examining this tradition across time and disciplines, this course will explore a range of mathematical systems, tools and media as well as how they advance contemporary architectural topics such as parametrics, optimization, fabrication, and implementation.

**\*\*NEW COURSE\*\*****ARCH 726-001: Furniture Design as Strategic Process**

Mikael Avery &amp; Brad Ascalon

R 12:30-3:00

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 727-401: Industrial Design I**

Peter W. Bressler

W 9:00-12:00

Industrial design (ID) is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer. Industrial designers develop these concepts and specifications through collection, analysis and synthesis of user needs data guided by the special requirements of the client or manufacturer. They are trained to prepare clear and concise recommendations through drawings, models and verbal descriptions. The profession has evolved to take its appropriate place alongside Engineering and Marketing as one of the cornerstones of Integrated Product Design teams. The core of Industrial Design's knowledge base is a mixture of fine arts, commercial arts and applied sciences utilized with a set of priorities that are firstly on the needs of the end user and functionality, then the market and manufacturing criteria. This course will provide an overview and understanding of the theories, thought processes and methodologies employed in the daily practice of Industrial Design. This includes understanding of ethnographic research and methodologies, product problem solving, creative visual communication, human factors / ergonomics application and formal and surface development in product scale. This course will not enable one to become an industrial designer but will enable one to understand and appreciate what industrial design does, what it can contribute to society and why it is so much fun.

**ARCH 730-001: Techniques, Morphology and Detailing of a Pavilion**

Mohamad Al Khayer

T 6:30-9:30

The course will focus on the design, morphology, detailing, and the construction of “Penn Design Pavilion inspired by Kinetic Architecture” which is set to be constructed in Spring 2019 on a site located at the University Of Pennsylvania Campus. The course will develop through hands-on workshops and will focus on acquiring knowledge through making (Techne), understanding the morphological transformation of a given geometric linkage geometry, and building using readily available materials. The process consists of building and testing physical models that simulates the actual pavilion. In addition to digital simulation sessions to realize the desired design. The second half of the semester will focus on using lightweight construction materials to fabricate the pavilion’s actual components, including structural elements, molded components, and joints, which are required for pavilion’s final assembly. Additionally Students will learn to organize design and fabrication teams, control design and production schedules, and work with set budget, which requires keeping track of construction cost and forecast for required procurements, including material quantities takeoff, ordering material, and schedule deliveries and receiving.

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

Charles Jay Berman

W 9:00-12:00

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.

**ARCH 732-002: Tech Designated Elective: Advanced Production**

Masoud Akbarzadeh

M 9:00-12:00

The course intends to address the challenges in the design development process and fabrication of the Tiny House concept developed in the Fall 2017 studio. The primary objectives include ensuring the structural integrity of the prefab systems, sealing strategies and the necessary foundation for the structure, meticulous detailing the interior and exterior of the house, overcoming the fabrication challenges, and defining the assembly logic/sequence to complete the house. To achieve these goals, the students will design the assembly mechanisms for prefab systems and the junction between the glazing and the concrete. Also, they will investigate on the material transition from exterior to the interior and will provide solutions to include furniture, equipment, and embedded lighting within the modules. The outcome of the course will consist of the complete construction document for the whole house and a one-to-one scale prototype of minimum three assembled modules to reflect the solutions for the challenges of building the tiny house.

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

Mohamad Al Khayer

R 9:00-12:00

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

T 6:00-9:00

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 L. Avery

R 9:00-12:00

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 exercise 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

R 3:00-6:00

*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.

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

Todd Woodward

T 9:00-12:00

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

T 3:00-6:00

0.5 CU - 01/16/19 – 03/15/19

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

Stuart Mardeusz, Jonathan Weiss

T 3:00-6:00

0.5 CU - 03/18/19 – 05/01/19

While efforts in sustainable design have focused on energy use, carbon footprint, light and materials impacts on human occupants, it could be argued that water is the ultimate test of sustainability. Without water, there is no life. Water impacts, influences and shapes architecture in many different aspects. 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.

This course is an investigation of the ways that architecture is informed by the water resources and availability of each specific project region. We will cover a range of subjects including; the physics of water, the systems to gather, distribute, supply and treat potable water, grey water, waste water, including the correlation to energy and recycling that are integrated into the architecture of buildings. 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 final case study report.

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

Richard Garber

W 9:00-12:00

0.5 CU - 03/18/19 – 05/01/19

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. The synthesis of 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. Beyond design intent and process, 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 736-007: Tech Designated Elective: Bim (Building Information Modeling): Virtual Construction and Detailing**

Franca Trubiano

R 4:30-6:00

0.5 CU

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 742-001: Function of Fashion in Architecture**

Danielle Willems

T 6:30-9:30

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 744-001: Digital Fabrication: Images, Figures, Objects**

Ferda Kolatan

M 6:00-9:00

This course explores the conceptual and physical intersection between digital technology and contemporary aesthetics. The objective for this seminar will be the development of an artefact, which converges pictorial and formal qualities into a co-dependent, coherent expression. Digital tools will be utilized primarily to create tensions between visual and physical information and thus challenge our customary ways of categorizing the terms image, figure, and object into separate entities. The students will be using 3D color powder printing -a now ubiquitous tool for architectural prototyping- to explore how this technology may alter and reinvent architecture's incorporation of image and figure into form.

**ARCH 746-001: Cinema and Architecture in Translation**

Nicholas Klein, Danielle Willems

W 9:00-12:00

Cinema and Architecture in Translation is a seminar that will survey key cinematic moments and techniques within the history of film and find new intersections between architecture and narratives. The focus will be on the relevance of mise-en-scene, the background and building figures of architecture and future speculations of the city, yet in relation to narrative dynamics. One of the challenges in considerations and techniques that will affect both conceptualization and the production of spatial manifestations using potent visual platforms.

Current pre and post-production techniques in film making methods are converging with architectural digital representation. This is an opportunity that provides fertile ground for architects to re-examine the 'digital' in a variety of scales in relation to impactful narratives and visualizations. These tools, specifically the technique of "matte-painting" will be explored in this course. There is a rich history in constructing images, speculative worlds and scenes for the film

industry. We will explore the parallels between the tools and strategies of cinematic visualization as it relates to advanced architectural image making. Students will have the opportunity to analyze filmic scene making, learn advanced representation and techniques in matte painting and zbrush.

Above all this course will engage students in the conceptual as well as practical complementarities of architecture and cinema, while watching some of the best films ever made and the most provocative and insightful books to help process them. An important aspect of this course will be to explore the differences between “real” architecture and the cinematic architecture. The expansive Space and Time in which cinematic architecture is located, creates an incubator where true innovated speculation can occur. This is an advanced representation course that produces 2D images and narrative texts.

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

Hina Jamelle

W 9:00-12:00

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

Kutan Ayata

F 9:00-12:00

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

Paul Sehnert

F 9:00-12:00

This course provides an introduction to the relationship between architectural design and real estate development. Following a discussion of fundamentals, examples focus on commercial building types, and illustrate how architectural design can contribute to real estate development. Topics include housing design commercial buildings, adaptive reuse, downtown development, mixed-use projects, and planned communities. The course consists of lectures, reading assignments, short essays, a group project, and an mid-term test. Invited lecturers include architects and real estate developers. Readings consist of a Bulkpack available from Wharton Reprographics. There is one course text: Witold Rybczynski, "Last Harvest."

### **ARCH 765-001:** Project Management

Charles Capaldi

F 9:00-12:00

This course is an introduction to construction management, project management and various construction project delivery systems. In the study of construction delivery systems, we will examine the players, relationships and the advantages and disadvantages of different contractual and practical relationships. Exercises and lectures will focus on developing perspectives into the various roles, needs and expectations of the many parties involved in a construction project and the management skills and techniques which help to bring a project to a successful conclusion. The objective of the course is for the student to understand the basics of management tools and techniques as applied to built projects.

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

Asuka Nakahara

W 3:00-6:00

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.1 Throughout, we will focus on risk management, as minimizing risk first results in maximizing long run profits and net worth accumulation.

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

Joan Ockman

W 9:00-12:00

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 *oublier 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, a traditional concept of allowing students to engage their architectural studies directly with sites and cities, is offered at PennDesign in many forms. Among these, the spring abroad programs offer the longest exposure and duration of stay: they allow students to become fully immersed in cultures and sites distant to the United States. The two programs in 2019 offer different themes and cultures, as well as degrees to which design exercises complement historical and discursive academic matter.

In 2019, students study and travel for approximately 4 weeks at the end of the spring semester (mid/late-May through mid/late-June) and receive 1 elective course unit of credit. These programs are open to both graduate and undergraduate students, at all levels, as well as to graduate students outside of PennDesign in and outside of the University of

Pennsylvania, with approval of the instructors. See below for information on the specific programs, fees, credit, and application.

### **ARCH 782-001: Paris The City: Its Sites, Its Events, Its Constructed Moments**

#### **Travel to Paris & Marseille**

Annette Fierro

May 28 – June 28

The Paris program is a long-established academic program that draws from many associations local to the extravaganza of this famous city. 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, parks, and offices.

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

The program begins with issues essential to understanding Paris: (1) Urbanism--from early Roman and medieval morphologies, to the city's seminal role in initiating the discipline of urban design (Hausmann), 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 and Pompidou, to the vanguards of structural glass technology, to the achievements in material coordination of Gehry Technologies. (3) Contemporary civic architecture, beginning with François Mitterrand's last great rebuilding of the city, the Grands Projets, but extending into the new projects at Les Halles, Parc de la Villette, La Defense and 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 and extends the great project of the French landscape. (5) The plethora of singular incomparable architectural moments, especially those of Le Corbusier, Pierre Chareau, and more recently, Jean Nouvel, Dominique Perrault, and Jakob & McFarlane. We tour many of these buildings and landscapes with scholars, architects and engineers and we hear their lectures simultaneously. We begin to know, deeply, the context in which architecture and landscape is produced in this profoundly important city.

The program is organized from late-May to late-June. The typical week is organized with tours of sites in the mornings and evening lecturers at the Paris American Academy, located at the historic Val-deGrace. Students live in apartments arranged by the Paris American Academy, in the 5th arrondissement in the Latin Quarter near the great and immeasurably beautiful Parc du Luxembourg.

### **ARCH 782-002: Greece: Apomachenes**

#### **Travel to Athens, Aegean Islands, and other sites**

Danielle Willems, Ezio Blasetti

May 20 – June 20

Apomechanes is a computational design workshop as well as a study summer 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 Summer Study Abroad Program Greece will organize a series of visits to both archaeological sites as well as modern and contemporary architectural sites. PennDesign 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) Speculative Architectural Movements (5) 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, Epidaurus, 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.

## **FINE ARTS**

### **FNAR 500: CIVIC STUDIO**

Paul Farber

Wednesday, 2-5pm

Civic Studio is an engaged research praxis that delves in the significant theories, methodologies, and practices of public and socially-engaged artwork. Students draw from arts- and place-based modes of inquiry toward collaborative projects with fellow classmates, artists, and organizations in Philadelphia and beyond, while pursuing semester-long individual research. Each semester, students work with and as embedded practitioners in exhibitions, installations, and other artistic platforms throughout the city. In turn, through readings, site visits, and site-specific work, students gain creative and critical capacity for producing their own final projects about a particular street, intersection, or site in the city. Through Civic Studio students are able to reflect upon and practice public work with artistic, scholarly, and civic aims.

### **FNAR 515: ABROAD STUDIO**

Brent Wahl, Jamie Diamond

Thursday, 2-6pm

This Traveling Studio is offered every other spring term to upper level photography & related media students. It is a cross-cultural visual investigation, exploring the contradictions and significance of the chosen city. This course incorporates multi-disciplinary research in preparation for the trip; exploring various fields of knowledge production such as art, history, social sciences, markets and governance. Class discussion, readings and individual research will be focused towards the development of each student's photo/media project, which will be realized while abroad. After returning to Philadelphia, students will develop and refine their work; the remaining classes will emphasize critique, editing, printing and presentation options. The final projects will be included in a group exhibition at the end of the semester. Admission to the course is on a competitive basis.

### **FNAR 517: Integrative Design Studio: I, Design**

Orkan Telhan

Tuesday, 1:30pm-5:30pm

Integrative Design Studio is an integrative studio that explores new frontiers of design that enable, empower, and interrogate the human in 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. But can I, design and seek a different future? 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 518: PARIS MODERN: SPIRAL CITY**

Ken Lum, Jean-Michel Rabate

Wednesday, 9am-12pm

Paris has been shaped by a mixture of organic development, which is still today perceptible in the "snail" pattern of its arrondissements whose numbers, from 1 to 20, coil around a central island several times so as to exemplify a "spiral city," and of the violent cuts, interruptions and sudden transformations that again and again forced it to catch up with modern times, the most visible of which was Baron Haussmann's destruction of medieval sections of the city to make room for

huge boulevards. Thus Parisian modernism has always consisted in a negotiation between the old and the new, and a specific meaning of modernity allegorized for Louis Aragon, the Surrealists and Walter Benjamin consisted in old-fashioned arcades built in the middle of the 19th century and obsolete by the time they turned into icons of Paris. The aim of the class will be to provide conceptual and pragmatic (visual, experiential) links between a number of texts, theories and films deploying various concepts of the modern in Paris, with a guided tour of the main places discussed. The course that Professors Jean Michel Rabate (English) and Ken Lum (Fine Arts) will lead studies Paris as a work of science-fiction where its many futures are embedded in its many pasts, where discontinuity is a continuous process and where the curving line of the snail's shell is a line of ceaseless curling resulting in a perennial oscillation where an outside converts into an inside and an inside then converts to an outside. The course will travel to Paris over spring break to get an in-depth look at the topics discussed in class.

#### FNAR: 521 UNPACKING AN ICON

Staff

Monday, 10am-1pm

Dieter Rams is known as one of the most influential designers of the twentieth and twenty-first centuries, having enjoyed a six-decade career directing product design for major manufacturers in Germany and the United Kingdom. In addition to shaping the look and feel of some of the most recognizable functional objects of the postwar era, Rams has also developed a broader philosophy for rational, responsible design that continues to resonate in the profession. This seminar will explore Rams's work and philosophy in its historical context(s), examining his important contributions but also interrogating the commercial and institutional forces that have contributed to hagiographic understandings of his career--often against his stated wishes. The course will set Rams's work into a wider network of ideas in the history and theory of design, particularly regarding the relationships between aesthetics, consumption, and notions of morality. Themes to be addressed include the legacy of modernist values (e.g., functionalism, rationality, modularity, universality, etc.); semiological approaches to analyzing object design; the shifting position of the designer between institutional settings, whether educational, corporate, or cultural; the specific social and political contexts of postwar West Germany, the Cold War, and late-twentieth-century globalization as they relate to the role of design in national identity and international relations; and the processes of interpretation and varying agendas behind the formation of "design icons." Students will compose written object analyses, give in-class presentations, and create a final product or graphic design project that builds on the intellectual histories explored in the course.

#### FNAR 523: DRAWING I

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

Section 402 – Matt Neff – Monday and Wednesday: 5pm-8pm

Section 403 – Amy Lee Ketchum – Tuesday and Thursday: 1:30pm-4:30pm

Section 404 – Staff – Monday and Wednesday: 2pm-5pm

Section 405 – Staff – Monday and Wednesday: 10am-1pm

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, 10am-1pm

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.

#### FNAR 525: FIGURE PAINTING

Marjorie Edgerton

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

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

#### FNAR 528: FUNCTIONS AND MATERIAL

Joshua Mosley

Tuesday and Thursday, 9am-12pm

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 – Staff – Monday and Wednesday: 5pm-8pm

Section 402 – Anthony Bowers – Tuesday and Thursday: 9am-12pm

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 535: FIELD GUIDE

Mark Owens

Thursday, 1:30-4:30pm

This studio course will explore the fundamental connections between language and the world of things that underpin the practice of graphic design. From the earliest modes of pre-alphabetic writing to the invention of moveable type and the ones-and-zeros of computer code, all language is a differential system. In combination with lectures and critical readings, over the course of the semester students will gather, design, present, and re-present a typology of objects in the form of a Field Guide. This course will familiarize students with the ways that the fundamental tools of graphic design can be used in the organization and presentation of visual information and acquaint them with a range of "typological" approaches in both art and design. Students will explore the possibilities and limitations of graphic form across multiple media and demonstrate an ability to translate abstract concepts into concrete forms.

#### FNAR 545: SCULPTURE PRACTICES

James Howzell

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)

#### FNAR 547: ENVIRONMENTAL ANIMATION

Chris Landau

Tuesday and Thursday, 6-9pm

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, 5-8pm

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

Staff

Tuesday and Thursday, 9am-12pm

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, 10am-1pm

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.

#### FNAR 566: GRAPHIC DESIGN

Mark Owens

Thursday, 4:30-8:30pm

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

#### FNAR 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 – Anna Neighbor – Monday, 2-5pm

Section 402 – Gabriel Martinez – Thursday, 1:30-4:30pm

Section 403 – Gabriel Martinez – Thursday 9am-12pm

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

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 580: FIGURE DRAWING I

Marjorie Edgerton

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 Hayes

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, 9am-12pm

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 2pm-5pm

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 2pm-5pm

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.

**FNAR 633: DIGITAL ILLUSTRATION**

Scotty Reifsnyder

Monday, Wednesday 2pm-5pm

Digital Illustration is a course designed to expose students to the diverse techniques and approaches used in creating digital illustration for print publication. Course assignments will include two dimensional animation storyboard rendering, figure illustration, technical diagram illustration, photographic retouching and enhancing. Digital applications will include morphing with layers, surface cloning, three-dimensional modeling and spatial transformation of scenes and objects. Students completing this course will possess the capability to design and plan creatively and skillfully execute finished artwork.

**FNAR 634: ART OF THE WEB**

Sebastien Derenoncourt

Monday, Wednesday 6pm-9pm

Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives to us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical and conceptual skills and foster creative thinking.

**FNAR 635: 3-D COMPUTER MODELING**

Scott White

Monday, Wednesday 10am-1pm

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.

**FNAR 636: ART, DESIGN & DIGITAL CULTURE**

Section 401 – Scotty Reifsnyder – Monday, Wednesday 10am-1pm

Section 402 – Jacob Rivkin – Tuesday, Thursday 9am-12pm

Section 403 – Jacob Rivkin – Tuesday, Thursday 1:30pm-4:30pm

Section 404 – Avery Lawrence – Monday, Wednesday 6pm-9pm

Section 405 – Christopher Lawrence – Monday, Wednesday 2pm-5pm

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

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)

**FNAR 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 Stolfa – Monday 10am-1pm  
 Section 402 – Demetrius Oliver – Monday 2pm-5pm  
 Section 403 – Demetrius Oliver – Monday 5pm-8pm  
 Section 404 – Jamie Diamond – Tuesday 1:30pm-4:30pm  
 Section 405 – Karen Rodewald – Tuesday 5pm-8pm  
 Section 406 – Karen Rodewald – Wednesday 10am-1pm  
 Section 407 – Theo Mullen – Tuesday 10am-1pm  
 Section 408 – Karen Rodewald – Wednesday 5pm-8pm  
 Section 409 – Heather Phillips – Thursday 1:30-4:30pm  
 Section 410 – Heather Phillips – Thursday 5pm-8pm

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**

Gabriel Martinez  
 Wednesday, 2pm-5pm

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

**FNAR 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.

**FNAR 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.).

#### FNAR 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 647: EXPANDED DOCUMENTARY

Artie Vierkant

Tuesday, 2pm-6pm

The sites and situations of documentary in our culture have exploded exponentially - from standardized formulas (like reality TV), to social media and cross-platform journalism. In contemporary art, documentary practice has also significantly expanded and diversified. Since the early 2000's, with several influential exhibitions following Documenta XI, a new generation of artists have taken up the ambition of depicting our social reality, and have done so by re-engaging and re-inventing the documentary mode. This intermediate course will examine this vital contemporary field and will also offer students a comprehensive introduction to the history of documentary practice. We will investigate a series of key questions regarding the relation between politics and aesthetics, mediums and mobility, how documents function to both approximate and deny a sense of 'reality' and perhaps most importantly- what kinds of social, political or personal realities you want to propose in your artwork. The class will be driven by a series of studio assignments and practical experimentation. Although there will be an emphasis on photography and video, students will also explore a multiplicity of strategies and forms (including archival display, essayistic installation, image-text relationships, and the documentation of performance.)

#### 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 – Staff – 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 10am-1pm

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 5pm-8pm

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.

#### FNAR 678: INTERFACING CULTURES

Sebastien Derenoncourt

Friday, 9am-1pm

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 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 720: TOPICS IN REPRESENTATION

Anu Mathur, Matthew Neff

Monday, 9am-12pm

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.

**DEPARTMENTAL CONTACT INFORMATION:**

- Architecture: [arch@design.upenn.edu](mailto:arch@design.upenn.edu)
- City Planning: [roslynne@design.upenn.edu](mailto:roslynne@design.upenn.edu)
- Fine Arts: [fnarug@design.upenn.edu](mailto:fnarug@design.upenn.edu) or [mfa@design.upenn.edu](mailto:mfa@design.upenn.edu)
- Historic Preservation: [amab@design.upenn.edu](mailto:amab@design.upenn.edu)
- Landscape Architecture: [crocetto@design.upenn.edu](mailto:crocetto@design.upenn.edu)
- Kleinman Center for Energy Policy: [ccolijn@design.upenn.edu](mailto:ccolijn@design.upenn.edu)

**DETAILED INFORMATION ON REGISTRATION IS AVAILABLE ONLINE AT: [COURSES AND REGISTRATION](#)**

**QUESTIONS/CONCERNS REGARDING COURSE REGISTRATION: [REGISTRAR@DESIGN.UPENN.EDU](mailto:REGISTRAR@DESIGN.UPENN.EDU)**