Core Courses

501. Studio I. (A) Faculty.

The focus of this foundation studio is to explore ways of recording and representing landscape - with an emphasis on material, space, rhythm and measure - through a range of drawings and constructions. The studio attempts to create a sensibility toward landscape where the act of surveying a site is as much an imaginative endeavor as is the crafting of an artifact or the construction of a path in a landscape. Emphasis is placed on visual and manual skills in two-dimensional and three-dimensional constructions (drawing, fabrications, model-making, etc.), while developing ways to "see" landscape. The studio is structured around the themes of wetness/dryness and enclosure/disclosure, and works with one or more sites in the Philadelphia region. Recent sites have included Bartram's Gardens and East Fairmount Park in Philadelphia. In the past, the studio has focused on a territory around Martha's Furnace in the Pine Barrens, NJ; a part of the Meadowlands in northern NJ; an anthracite strip-mine in part of Pennsylvania's Appalachian Mountains; the Wissahickon Creek and, the Schuylkill River Trail in Philadelphia; and Great Falls in Paterson, NJ. Projects involve the making of pathways in these otherwise undesigned environments.

502. Studio II. (B) M'Closkey/Faculty. Prerequisite(s): LARP 501: Studio I.

This foundation design studio explores the relationship among sites, drawings, models and the making of landscape architectural projects. The studio site is typically located on vacant or abandoned land in North Philadelphia along the Delaware River. Such sites are fairly large in size and present a complex set of issues, including fragmentation, lack of access, and contamination. Through the design of a park, students test and refine the relationship among project concept, modes of visualization, and project formation (organizational and material).

As a precursor to site work, students experiment with methods and materials for making organization and form in two and three dimensions. In the early part of the semester, we explore techniques of imaging that generate multiples (scenarios), serial progressions (transformations of a sort), and iterations (transformations of another). Through various grafting techniques, we use the resultant drawings and models as analogous structures in order to imagine possible future organizations and uses for the site. These studies occur in conjunction with site interpretations ranging from photographs and sketches, to measured drawings and diagrams. The objective for the studio is to develop an informed and imaginative response to the site in order to create new relationships among the site, its immediate edges and the larger neighborhood or region.

511. Workshop I: Ecology and Built Landscapes. (A) Willig and Popowsky.

This workshop explores a sequence of sites extending from the Atlantic Ocean to the Appalachian Mountains that illustrates the changing geology and topography of the regional physiographic provinces including the Atlantic Coastal Plain, Piedmont, and Valley and Ridge. In moving westward along the transect, field trips to natural areas and constructed sites will highlight the diversity of regional plant communities ranging from primary dune to salt marsh, serpentine Virginia pine-oak forest to seepage wetland, and more. Analysis of the inter-connections between the underlying geology, topography, hydrology, soils, vegetation, wildlife, and human interventions will reveal patterns reflecting process and demonstrate key ecological and cultural systems and processes through the production of field notebooks as well as large-scale measured drawings. Ultimately students will develop a vocabulary (recognition, identification and nomenclature) of the materials of landscape, its substance, its ecology, and its changing nature owing to place and time.

NOTE: COURSE MEETS IN ASSIGNED CLASSROOM FROM 9-1PM. CLASS MEETING FROM 2-5PM IS DEDICATED TO FIELD WORK.

512. Workshop II: Landform and Planting Design. (B) Olgyay.Prerequisite(s): LARP 511: Workshop I. Corequisite(s): Summer Field Ecology Laboratory/Willig.

Workshop II combines two of the most elemental tools in the practice of landscape architecture: landform and planting design. Grading - the shaping and sculpting of the landform - is both art and science, and thus Workshop II aims to provide an appreciation of landform as an evocative component in the design vocabulary as well as a critical tool in solving difficult design problems. The basic techniques and strategies of grading design (slopes, terraces, water management, grade change devices) will be introduced, practiced and reinforced, so that grading design becomes an integral part of the students' design approach. Lecture, field trips, modeling, in-class exercises, and group projects will be used.

The Planting component provides students with a working overview of the principles and processes of planting design. Plants will be considered both as individual elements and as part of larger dynamic systems. The natural distribution of plants, concepts of plant community and successional patterns, and the relationship of planting an topography will be used as the initial framework for planting design. Planting design typologies will be examined as an outgrowth of these "natural" patterns. The role of plants as a key element in the structural design of the landscape will be explored through a combination of modeling, plan and section drawing, temporal studies, writing, field trips and case studies. Emphasis will be placed on process and evolution: the temporality of planting (daily, seasonal and annual changes), establishment and maintenance of plantings, and the process of planting design. During the first week of May, a five-day field ecology course focuses on techniques of urban revitalization, sustainable land use, reclamation, and restoration. The field trips offer insight into the diversity of approaches to using plants to promote positive environmental change.

542. Media II: Digital Visualization. (B) VanDerSys.Prerequisite(s): LARP 533: Media I.

Continuing the sequence of the Landscape Architecture media classes, this course will provide students with the techniques to explore and examine precision surface profiles and land forming strategies, in both physical and digital models. These models provide a basis to speculate on what processes and programs might be engendered or instigated.

Rhino will be the primary modeling platform. Associated plug-ins of Grasshopper, Rhino Terrain, Sonic, and Bongo will help extend the toolset. GIS will facilitate the collection and analysis of extent data. The Adobe Creative Cloud will also be used for documenting and expressing modeling processes through static and time-based visualizations.

533. Media I: Drawing and Visualization. (A) Faculty.

Drawing is the ability to experience deeply things we see and envision. It allows us, not only to represent things or images seen, but, to discover and construct space and depth on the two dimensions of drawing surface. Expanding the tools of drawing, this course presents inquiries into applied media providing a basis for envisioning the speculative and developing an economy of expression. Work will be closely related to work in Studio I. Students will be introduced to the formal syntax of drawing (line, contour, structure, texture, chiaroscuro), graphic grammar (orthographic, oblique, perspective projection drawings and free-hand sketching) alongside exercises in material expression (collage, assemblage).

535. (LARP780) Theory I: The Culture of Nature. (A) Weller.

Landscape architecture, architecture and visual art are all mediations between nature and culture. This course is designed to help students form their own view regarding our relationship with the "natural" world around us in an age of ecological crisis. To achieve this, the course provides a stimulating historical and contemporary survey of ideas of nature. We explore ways "nature" has been understood mythically, theologically, ideologically, philosophically, scientifically, and artistically through the ages, with an emphasis on contemporary culture. We survey the way in which the polarity of culture and nature has been historically constructed and more recently, deconstructed. The pedagogical philosophy of this course is that an appreciation of the broad pattern of history and the ideas that have shaped it are foundational to living a critical and ethical life and central to the process of making contemporary art, architecture, and landscape architecture.

540. Theory II: History of Ideas and Forms in Landscape Architecture. (B) Fabiani Giannetto.

This course unfolds several contemporary issues that shape the profession, such as giving form to environmental values, balancing science and art, ecology and design, reconsidering the need for the beautiful vis-a-vis the many sites challenged by pollution and abuse. Among the topics of discussion, this course will also take into account how recent phenomena such as the late twentieth-century increase in world population, sprawl, and environmental pollution, and how these have changed the reality described by the very word "nature" and have contributed to expand the domain of landscape architecture. The discussion of topics will integrate contemporary ideas and their roots in earlier theoretical formulation. The past will be presented as a way to illuminate, receive, and critique the present. Course objectives are to become familiar with the social and cultural processes that inform the landscape architectural discourse and to be able to discuss in an informed manner the impact of the latter upon design trends; to be able to trace the roots of contemporary ideas in earlier theoretical formulations; and to be able to think critically and to enhance synthesis and augmentation skills.

543. Media III: Flows: Linear / Non-Linear. (A) VanDerSys/Faculty.Prerequisite(s): Students in the 3-yr MLA program must complete LARP 533: Media I and LARP 542 Media II prior to beginning LARP 543: Media III.

This course is the third in the media sequence and is required of all MLA students at the 600 level. This course engages the generative potential of the dynamic and temporal attributes of the landscape medium. Time-based visualizations are used to investigate landscape organizations shaped through the dynamic interplay of varying processes and their spatial consequences. Emphasis will parallel the LARP 601 on urban ecology and landscape systems.

544. Media IV: Futures: Trends and Trajectories. (B) Freese.Prerequisite(s): Students in the 3-yr MLA program must complete LARP 533: Media I, LARP 542 Media II and LARP 543: Media III prior to beginning LARP 544: Media IV.

This course is the fourth in the media sequence and is required of all MLA students at the 600 level. This course exposes students to parametric tools as mechanisms for analyzing and generating both predictable and emergent terrain dependent urban morphologies. Rather than inert lines of shapes, space infrastructure are visualized as products of force and flow. Emphasis will parallel the LARP 602 studio on forms of urbanization. This course is open to Landscape Architecture students only. Students outside of Landscape Architecture will need instructor permission to enroll in this course.

612. Workshop IV: Advanced Landscape Construction. (A) Burrell.Prerequisite(s): LARP 611: Workshop III.

Advanced Landscape Construction: The Art and Craft of Design Documentation and Detailing introduces students to the process of landscape documentation as means of strengthening design intent through careful material selection and articulation of form. The course builds upon Workshop III by expanding the concept of site systems to the full range of drawings, details, specifications, and contracts used by landscape designers in the creation of the man-made environment. The course features lectures, case studies and field walks, exploring documentation from initial concept through construction administration. Topics will include materials and their use in exterior environments, documentation phases and their role in a projects evolution and the art of detailing to ensure beautiful, durable landscapes that define cohesive design.

601. Studio III. (A) Faculty.Prerequisite(s): Students in the 3-yr MLA program must complete LARP 501: Studio I and LARP 502: Studio II prior to beginning LARP 601: Studio III.

This studio brings together both two-year and three-year MLA students for a landscape studio problem that works at a regional scale, as well as multiple design scales. LARP 601 - the Green Stimuli studio - emphasizes rigorous site analysis, the strategic organization of living material, and the potential of design to produce a wide range of effects. Studio problems are "live" - local leaders and experts are actively trying to solve them, there is an audience for student work outside the University, and projects have the potential to stimulate debate and new directions.

The Green Stimuli studio takes on design problems where soil, terrain, geology, mineral resources, climate, water, plants, wildlife, and living systems interactions are major drivers. Studio projects explore one or more of these dimensions in depth to reach high levels of design exploration, strategic thinking, technical resolution and physical expression. The studio's topics intersect with a broader universe of practical concerns, including land use, local and regional economies, real estate development and public policy, as well as philosophical and artistic questions about nature and ecology. The intent is that designed Green Stimuli make new connections between the material of landscape and the economic, infrastructural, scientific, social, cultural and creative attributes of a region.

602. Studio IV. (B) Marcinkoski/Faculty.Prerequisite(s): Students in the 3-yr MLA program must complete LARP 501: Studio I, LARP 502: Studio II and LARP 601: Studio III prior to beginning LARP 602: Studio IV.

This studio is the fourth and final studio in the core sequence and is designed to introduce students to essential competencies related to contemporary problems in urban design. The studio operates in what have been referred to as "global cities" - contexts in which there are significant pressures on the physical form of a metropolis from substantial population and economic growth (both ongoing and projected). These pressures induce considerable demands for the development of new contexts. The studio is focused on managing and megotiating these pressures through landscape-driven strategies capable of guiding and organizing this urbanization. Students develop individual design strategies through a process of mapping, modeling, scenario building and fieldwork that lead to both conceptual and physical proposals for the development of new urban districts and metropolitan agendas.

611. Workshop III: Site Engineering and Water Management. (A) Faculty.Prerequisite(s): Students in the 3-yr MLA program must complete LARP 511: Workshop I and LARP 512: Workshop II prior to beginning LARP 611: Workshop III.

Building upon the skills and concepts developed in Workshops I and II, this intermediate workshop focuses on technical aspects of site design, with an emphasis on landscape performance. Functional considerations related to landscapes and their associated systems - including circulation, drainage and stormwater management, site stabilization and remediation - will be explored as vital and integral components of landscape design, from concept to execution. Lectures, case studies, field trips, and focused design exercises will enable students to develop facility in the tools, processes and metrics by which landscape systems are designed, evaluated, built and maintained. In concert with the concurrent design studio, students will consider the means by which functional parameters can give rise to the conceptual, formal, and material characteristics of designed landscapes.

701. Studio V. (A) Faculty.

These advanced elective studios provide opportunities for focused exploration of particular themes in contemporary landscape architecture. Important emerging and accomplished designers, often from divergent points-of-view, interests and backgrounds, are invited to run these studios. Collaborative options (between Landscape and the Departments of Architecture or City Planning) are sometimes offered across the School. In addition to our own faculty who offer some of these studios (Fabiani Giannetto, Gouverneur, Marcinkoski, Mathur, M'Closkey, Neises, Olin, Pevzner, Sanders, Tomlin), visitors have included Paolo Burgi (Switzerland), Peter Latz (Munich), Bernard Lassus (Paris), Margie Ruddick (Philadelphia), Chris Reed (Boston), Peter Beard (London), Nicholas Quennell (New York), Ken Smith (New York), Raymond Gastil (New York), Alessandro Tagliolini (Italy), Ignacio Bunster (Philadelphia), Perry Kulper (Los Angeles), James Wines (New York), Lee Weintraub (New York), Charles Waldheim (Chicago), Stanislaus Fung (Australia), Dennis Wedlick (New York), Sandro Marpillero (New York), Peter Connolly (Australia), and former associate professor Anita Berrizbeitia.

More recent visitors have been Claire Fellman (New York), Catherine Mosbach (Paris), Nanako Umemoto/Neil Cook (New York), Valerio Morabito (Italy), Carol and Colin Franklin (Philadelphia), Keith Kaseman (Philadelphia), Silvia Benedito (New York), Claudia Taborda (Lisbon), Mark Thomann (New York), Jerry Van Eyck (New York), and Martin Rein-Cano (Berlin).

660. (CPLN660) Fundamentals of Urban Design. (A) Al.

This course is a requirement for students enrolled in Certificate in Urban Design and for Master of City Planning students enrolled in the Urban Design concentration. How should urban designers give shape to the city? What urban design methods could they apply? This course helps students acquire the principles that can inform urban design practice. It has three major pedagogical objectives. First, it helps students understand the contemporary city through a series urban design tools. Second, it covers both historical and modern urban design principles. Finally, it includes all the scales in which urban designers operate, ranging from the fundamentals of social interaction in public space, to the sustainability of the region." This course is open to other interested PennDesign students if there is space and with permission of the instructor.

702. Studio VI. (B) Faculty.

These advanced elective studios provide opportunities for focused exploration of particular themes in contemporary landscape architecture. Important emerging and accomplished designers, often from divergent points-of-view, interests and backgrounds, are invited to run these studios. Collaborative options (between Landscape and the Departments of Architecture or City Planning) are sometimes offered across the School. In addition to our own faculty who offer some of these studios (Fabiani Giannetto, Gouverneur, Marcinkoski, Mathur, M'Closkey, Neises, Olin, Pevzner, Sanders, Tomlin), visitors have included Paolo Burgi (Switzerland), Peter Latz (Munich), Bernard Lassus (Paris), Margie Ruddick (Philadelphia), Chris Reed (Boston), Peter Beard (London), Nicholas Quennell (New York), Ken Smith (New York), Raymond Gastil (New York), Alessandro Tagliolini (Italy), Ignacio Bunster (Philadelphia), Perry Kulper (Los Angeles), James Wines (New York), Lee Weintraub (New York), Charles Waldheim (Chicago), Stanislaus Fung (Australia), Dennis Wedlick (New York), Sandro Marpillero (New York), Peter Connolly (Australia), and former associate professor Anita Berrizbeitia.

More recent visitors have been Claire Fellman (New York), Catherine Mosbach (Paris), Nanako Umemoto/Neil Cook (New York), Valerio Morabito (Italy), Carol and Colin Franklin (Philadelphia), Keith Kaseman (Philadelphia), Silvia Benedito (New York), Claudia Taborda (Lisbon), Mark Thomann (New York), Jerry Van Eyck (New York), and Martin Rein-Cano (Berlin).

761. Urban Ecology. (A) Carlisle/Pevzner.

This course introduces students to the core concepts, processes, and vocabulary of contemporary urban ecology. It aims to provide a conceptual framework and grounding in an understanding of ecological processes, in order to empower students to develop and critique the function and performance of landscape interventions. Urban ecology describes the interaction of the built and natural environment, looking at both ecology in the city, as well as ecology of the city. Lectures, case studies, critical reading and design exercises will enable students to increase their ability to analyze and interpret ecological systems and processes. By analyzing the application of ecological concepts in the design management of urban landscapes, urban ecology will be explored as a dynamic, human-influenced system. Registration is limited to MLA students in the LARP 601 studio.

781. (CPLN673) Case Studies in Contemporary Urbanism, Landscape Arch, and Design. (B) Gouverneur.

This course will expose students to a wide array of case studies in planning, urban design, and landscape architecture including 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, mix-use developments, and areas of new centrality. The program will also address 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 is limited to MLA students in the LARP 602 studio and to students in the Urban Design Certificate program . This course is cross-listed with CPLN 673.

Elective Courses

704. Urban Design Research Studio. (B) Gouverneur/Al.

This course is a requirement for students enrolled in the Certificate of Urban Design. The Urban Design Research Studio (UDRC) is a capstone educational experience open to students of architecture, planning, landscape architecture and historic preservation in PennDesign. The studio's focus is how design intelligence can be applied to complex urban problems which are at once systemic and spatial. Reaching across scales and across disciplines the studio immerses students in the social, economic, political, ecological and aesthetic complexity of the contemporary city in a way that interweaves the speculative quality of the design process with the analytical and evidence-based empiricism of urban reseach. Interdisciplinary collaboration is the studio's modus operandi and its purpose is to develop techniques and strategies by which contemporary cities can become not only metabolically more efficient but also more edifying of the human spirit in the 21st century. Acceptance into the studio is based on interview and portfolio with priority placements given to students enrolled in the Urban Design Certificate Program.

740. Topics in Digital Media. (C) Faculty. Prerequisite(s): LARP-543, MEDIA III.

These courses offer advanced instruction in the uses and applications of various digital media, including Geographical Information Systems, 3-D modeling, video, animation, and web-design. These courses are open to all interested School of Design students who already have a working knowledge of basic digital graphic techniques and with permission of the instructor. Recent topics have been: Simulated Natures (fall 2015, 2014), instructors Keith VanDerSys, Joshua Freese; Digital Fabrication (spring 2009-2013), instructor Keith VanDerSys; Non-Static Representation: Video, Animation, and Interactive Media (fall 2013, 2012), instructor: Todd Montgomery; Interoperable Terrains (fall 2008-2013), instructor: Keith Kaseman; Kino-Eye: Intro to Spatial Filmmaking (fall 2011, 2010), instructor: Richie Gelles; Geometry Clouds, Fluid Landscapes (fall 2002-2006), instructor: David Ruy; Tactical Surfaces / Topographic Modeling (fall 2002), instructor: Charles McGloughlin.

710. Implementation of Urban Design. (B)

This course is a requirement for students enrolled in the Certificate of Urban Design. With a focus on contemporary major cities this subject charts the various ways in which urban design is typically conceived, procured, administered and ultimately delivered. From the very conception of a project to its completion, the various methods and avenues through which contemporary cities are planned, designed, and constructed are examined from multiple perspectives so that students become familiar with the myriad issues and main actors involved in urban development. Though exemplary case studies the subject offers a comprehensive understanding of the complexities and contingencies of contemporary city making, placing a particular emphasis on the role of the urban designer as a practical, ethical and visionary agent of change. This course may open to other interested PennDesign students if there is space and with permission of the instructor.

720. Topics in Representation. (C) Faculty.Prerequisite(s): LARP501, LARP533, LARP601, ARCH501, ARCH532 OR ARCH601.

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.

730. Topics in Professional Practice. (C) Sanders. Fall 2015: course offering is limited to LARP majors or by permission of the instructor.

These seminar courses explore ideas and methods in current landscape architectural practice. They include instruction in professional procedures, office management, project development, contracts, and collaborative ventures. They include visits to construction sites, professional offices and archives. Recent topics have been: Transformational Leadership (fall 2015), instructor: Lucinda Sanders, Office Practice (spring 2003-2015) instructor: Lucinda Sanders.

741. (CPLN632) Modeling Geographic Space. (B) Tomlin.

This course explores the nature and use of raster-oriented (i.e. image-based) Geographic Information Systems (GIS) for the analysis and synthesis of spatial patterns and processes. Previous experience in GIS is not required.

SM 743. (CPLN670) Geospatial Software Design. (A) Tomlin.

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

SM 745. (CPLN680) Advanced Topics in GIS. (B) Tomlin.

This course offers students an opportunity to work closely with faculty, staff, local practitioners, and each other in conducting independent projects that involve the development and/or application of Geographic Information System (GIS) technology. The course is open to all students who can demonstrate sufficient experience, expertise, or initiative to purse a successful term project.

750. Topics in Construction, Horticulture and Planting Design. (C) Faculty.

These courses explore relevant topics in construction, horticulture and planting design as they relate to contemporary landscape architecture. The aim is to supplement fundamental skills and ideas explored in the core curriculum workshops with more advanced, cutting-edge research, technology and case studies. The teaching faculty are leading practitioners and researchers in the field. These courses are open to all interested School of Design students.

Recent topics have been: Urban Horticulture and Planting Design (fall annually since 2009), instructor: David Ostrich; Detailing New Urban Landscapes (spring 2012, 2011), instructor: Tom Ryan; Building New Urban Landscapes, Construction, and Planting Design (fall 2009, 2008), instructor: Tom Ryan; Urban Horticulture: Designing and Managing Landscape Plantings in Stressful Environments (1998-2003), instructor: Paul Meyer; Advanced Planting Design, instructors: Rodney Robinson (2003-2009), Dennis McGlade (fall 2006), Sheila Brady; and Sustainable Large Scale Planting of Trees, Shrubs, Perennials and Grasses (fall 2001), instructor: Wolfgang Oehme.

755. Arboretum Management I: Understanding Plants. (A) Skema.

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

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

756. Arboretum Management II: Evaluating Public Gardens. (B) Skema.

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 Cynthia Skema (cskema@upenn.edu).

760. Topics in Ecological Design. (C) Faculty.

These elective courses explore relevant topics in ecological design and new technologies as they relate to contemporary landscape architecture. The courses explore topics such as ecology, sustainability, habitat restoration, hydrology, green roof and green architecture technology, soil technology, and other techniques pertinent to the construction of ecologically dynamic, functioning landscapes. The teaching faculty are leading practitioners and researchers in the field. These courses are open to all interested PennDesign students.

Recent topics have been: Large-Scale Land Reclamation Projects (annually since 2005), instructor: William Young; Green Roof Systems (spring 2010-2014), instructor: Susan Weiler; Restoration Ecology (fall biennially since 2004), instructor: David Robertson; Sustainable Development: The Queen Elizabeth Olympic Park, London (fall 2012), instructor: John Hopkins; Ecological Economies and Infrastructure (spring 2012), instructor: John Hopkins; Contemporary Issues in Sustainability: The London 2012 Olympic Park and Other European Examples (fall 2011), instructor: John Hopkins; James Ludwig (spring 2004); Sustainable Landscape Design for Watershed Protection (fall 2008, 2006, 2005, 2004,2003, 2002), instructor: Katrin Scholz-Barth; and Ecological Restoration in the Urban Context (spring 2002, 2001), instructor: Deborah Marton.

SM 770. (HSPV620) Topics in Landscape Architecture History and Theory. (C) Faculty.

These advanced seminars explore central issues in the history and theory of landscape architecture from the Renaissance to the present day. The focus is upon the cultural context of built works, their relation to conceptual writings (contemporary with the designs as well as modern) and the dialogue between modern professional practice and historical example and method.

Recent topics taught by Professor Hunt have been: Place & Peacefulness (fall 2012); Texts & Topics (fall 2011); The Role of History in Contemporary Landscape Architecture (fall 2010); Understanding Venice Research Seminar (spring 2009); Sculpture Parks and Sculpture in Parks (fall 2008); Six Landscape Architects & What We Say About Them (spring 2007); Open Spaces & Open Places: The Design and Use of American Landscapes (spring 2006), co-taught with Emily Cooperman; Reception, or the After Life of Landscapes (Spring 2005), Land Art and Ian Hamilton Finlay (fall 2004), Lawrence Halprin: Theory, Practice, Context & the Archival record (spring 2004) co-taught with Emily Cooperman; French Landscape Architecture: Case Studies (spring 2003); Picturesque as Modernism (spring 2002).

Recent topics taught by Professor Fabiani Giannetto have been: Landscape Theory and Criticism: Six Case Studies (spring 2013); Villa Gardens and Villa Life: Cultural and Social Transformations (spring 2012); and American Landscape Architecture & Its Sources (spring 2011).

Recent topics taught by Professor Aaron Wunsch have been: Therapeutic Landscapes in America (spring 2014); The American Suburb: Real and Ideal (spring 2013).

790. LARP Summer Institute: Landscape Operations. (L) Faculty. Course fee: \$500.00

This one-week course, for entering three-year MLA students, introduces concepts and techniques for analyzing, representing, and operating on landform, the fundamental medium of landscape architecture. Students will learn representational and model-making techniques for conveying topography, and will describe a series of landscape interventionss on a topographic surface. Through models and drawings, students will develop an appreciation for the spatial implications of landform, for landscape narrative, for the movement of water and people across the landscape, and for the operation of reshaping the ground. Course enrollment is by permit only. Please contact Darcy Van Buskirk (LARP Dept.) at darcyv@design.upenn.edu.

780. (LARP535) Topics in Theory and Design. (C) Faculty.

These advanced seminars explore advanced ideas in contemporary landscape architectural design and theory. A special link is made between the analysis of built work and text to design practice and the making of projects. Topics include the intersections of art, nature and creativity; practices of analysis and criticism; ideas of urbanism and infrastructure; collaborative ventures and cross-disciplinarity; vision and visuality; and representational structures, both verbal and visual. These courses fulfill the Landscape Architecture Theory III requirement and are open to all interested School of Design students.

Recent topics have been: Classics Considered: The Craft and Criticism of Landscape Architecture (fall 2015), instructors: Laurie Olin, Raffaella Fabiani Giannetto; Designing with Risk (spring 2016, 2015), instructors: Matthijs Bouw, Ellen Neises (2015); WORK: Aspects and Topics in Landscape Architecture (spring 2016, 2015), instructor: Laurie Olin; Edge Operations (spring 2014), instructor: Meg Studer; Landscape Thinking Research Seminar (spring 2013), instructor: Richard Weller; Designed Ecologies (fall 2011-2013), instructor: Ellen Neises; Environment Regimes (spring 2013, fall 2011, 2010, 2009, spring 2007, 2006), instructor: Dilip da Cunha; Case Studies in Urbanism, Landscape and Design (spring 2004-2014) instructor: David Gouverneur; Landscape Production and Visual Culture (spring 2009), instructor: Claudia Taborda; Landscape and Globalization (spring 2010), instructor: Claudia Taborda; Concepts & Theories in Contemporary Landscape Architecture (fall 2008, 2007, 2006, 2004, 2003), instructor: Anita Berrizbeitia; Paradoxical Spaces (spring 2008), instructors: Linda Pollak and Sandro Marpillero; Contemporary European Landscape Architecture (fall 2007), instructor: Joseph Disponzio;

796. Independent Studio. (S) Faculty.

An independent studio may be undertaken in the final semester but is not required. The independent studio is intended to provide highly motivated students who have demonstrated their ability to work independently with the opportunity to pursue topics that extend the boundaries of the profession. For permission, students must prepare a written proposal in the preceding semester and apply for approval from the faculty. Details available in Landscape Architecture department office.

999. Independent Study. (S) Faculty.

An independent study may be taken for elective credit at any point during the degree program for a letter grade. For permission, students must prepare a written proposal in the preceding semester and obtain a Landscape Architecture faculty advisor to oversee their work. Details are available in the Landscape Architecture department office.

Summer Institutes

791. LARP Summer Institute: Landscape Operations. (L) Faculty. Course fee: \$500.00

This one-week course, for entering three-year MLA students, introduces the fundamental tools and techniques of hand drawing for landscape architects. Exercises will range from architectural drafting and measured site observation, to constructed section and projective landscape imagination. The class will instruct students in the fundamental concepts of scale, measure, graphic hierarchy, line and texture, and explore the representation of geology, built form and vegetation. Students will begin to develop a visual vocabulary and become familiar with representational methods and techniques that they will continue to explore throughout the Summer Institute and into the fall semester. Course enrollment is by permit only. Please contact Darcy Van Buskirk (LARP Dept.) at darcyv@design.upenn.edu.

792. LARP Summer Institute: Natural Systems (3-year students). (L) Willig. Course fee: \$500.00

This four-day session for entering three-year MLA students will provide an introduction to the varied physiographic provinces and associated plant communities of the greater Philadelphia region. Through a review of available mapping and on-site study we will characterize and consider the connections between climate, geology, topography, hydrology, soils, vegetation, wildlife, and disturbance, both natural and anthropogenic. With a focus on plants students will begin to develop a familiarity with the local flora (native and non-native) including plant species identification, preferred growing conditions, and potential for use. Field trips will include visits to the Inner Coastal Plain and Piedmont. Course enrollment is by permit only. Please contact Darcy Van Buskirk (LARP Dept.) at darcyv@design.upenn.edu.

793. LARP Summer Institute: Landform and Grading Workshop. (L) Olgyay. Course fee: \$500.00

The reading and shaping of landform is an elemental tool in the practice of landscape architecture. The act of grading design - the shaping and sculpting of landform - is both art and science. This four-day session for entering two-year MLA students aims to provide an appreciation of landform as both an evocative component in the design vocabulary and as a critical tool in resolving difficult design problems. Basic techniques and strategies of grading design are introduced and reinforced, so that grading design becomes an integral part of the student's design approach. This session is intended to provide a concise overview of the principles and process of landform and grading design, and is designed to prepare the entering two-year students for Workshop III. Course enrollment is by permit only. Please contact Darcy Van Buskirk at darcyv@design.upenn.edu.

794. LARP Summer Institute: Natural Systems (2-year students). (L) Willig. Course fee: \$500.00

This five-day session for entering two-year MLA students will provide an introduction to the varied physiographic provinces and associated plant communities of the greater Philadelphia region. Through a review of available mapping and on-site study we will characterize and consider the connections between climate, geology, topography, hydrology, soils, vegetation, wildlife, and disturbance, both natural and anthropogenic. With a focus on plants students will begin to develop a familiarity with the local flora (native and non-native) including plant species identification, preferred growing conditions and potential for use. Field trips will include visits to the Coastal Plan and Piedmont of New Jersey and Pennsylvania. Course enrollment is by permit only. Please contact Darcy Van Buskirk (LARP Dept.) at darcyv@design.upenn.edu.

795. LARP Summer Institute: Computing Introduction and Academic Writing. (L) VanDerSys/Fleming. Course fee: \$500.00

The Intro to Computing session introduces students to the facilities of digital media as the primary mode of design visual communication. The course provides a short, yet intensive, hands-on inquiry into the production and expression of digital media that is essential for all designers. Through a series of working labs, students learn various software applications and associated techniques to execute precise two-dimensional representations of three-dimensional concepts. Students also learn the PennDesign systems, network basics and computer lab procedures.

In the Academic Writing session, students will also receive a basic introduction to research methods, research resources, academic writing, citation formats and standards expected by the School of Design. Course enrollment is by permit only. Please contact Darcy Van Buskirk at darcyv@design.upenn.edu.