

# Landscape Architecture (LARC)

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## Courses

### **LARC 0841. Sustainable Design. 3 Credit Hours.**

What's the big deal about global warming and how should we respond to it? Explore the issues and underlying causes. See how contemporary designers from Germany, Netherlands, UK and Japan are responding to scientific knowledge with sustainable designs for buildings, cars, towns and parks. Develop your own creative project to reduce the greenhouse effect. Have you ever wondered about what happens to local abandoned factories and degraded streams and rivers? Philadelphia is a national hotbed for sustainable design. Visit local restoration sites, modern "green" buildings, parks that reclaim waste water and transformed industrial parks to see firsthand what is happening in our area. Learn how design is transforming to propel us toward a low waste, energy conserving society in the 21st century. NOTE: This course fulfills a Science & Technology (GS) requirement for students under GenEd and Science & Technology Second Level (SB) for students under Core. This course should not be taken by students who have successfully completed LARC 1013.

**Course Attributes:** GS

**Repeatability:** This course may not be repeated for additional credits.

### **LARC 0852. Green vs. Gray: Improving and Sustaining Urban Ecosystems. 3 Credit Hours.**

Explores urban ecosystems and methods of improving and sustaining urban environments using the City of Philadelphia as a living laboratory. Students learn about urban ecology, urban field experiments, and the work required to sustain green infrastructure within a city landscape. As a Community-Based Learning (CBL) course, students engage in ten hours of field work and environmental stewardship which can range from the Pennsylvania Horticultural Society's Tree Tender training, tree planting, restoring urban ecological systems and vacant lots, working in sustainable urban agriculture and/or greening school rooftops. NOTE: This course fulfills a Science & Technology (GS) requirement for students under GenEd and Science & Technology Second Level (SB) for students under Core.

**Course Attributes:** GS

**Repeatability:** This course may not be repeated for additional credits.

### **LARC 1013. Natural and the Built Environment. 3 Credit Hours.**

An introduction to the interrelated disciplines of Landscape Architecture, Horticulture, Planning, and Architecture. Explores existing and natural site conditions and their impact on influencing and shaping the built environment. Also examines key issues in the interrelationships and applications of these allied professions. NOTE: This course should not be taken by students who have successfully completed LARC 0841.

**Repeatability:** This course may not be repeated for additional credits.

### **LARC 1044. Landscape Architecture Foundation I. 3 Credit Hours.**

This course is an introduction to fundamental design principles, drawing and graphic communication skills. Students learn to 'see' and 'express' the landscape around us in terms of a new language of form, mass, space, line and composition. Emphasis is placed on exploring 2D and 3D aspects of space making principles, combining plans, sections, 3D renderings and models to develop a comprehensive understanding of spatial forms.

**Repeatability:** This course may not be repeated for additional credits.

### **LARC 1111. Introduction to Green Careers in Landscape Architecture. 1 Credit Hour.**

This entry level course provides an introduction to the discipline of landscape architecture and how it prepares students for careers in the growing green and sustainability fields. Students will learn how landscape architects, with their knowledge of natural systems, are at the forefront of creating new and innovative sustainable or green practices in the design of our environments.

**Repeatability:** This course may not be repeated for additional credits.

### **LARC 1142. Design Communications. 3 Credit Hours.**

This studio course explores the development of graphic techniques and introduces students to the landscape design process commonly used in landscape architecture and horticulture. Students explore spatial composition and develop a basic small scale design project using a variety of graphic skills.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 1144. Landscape Architecture Foundation II. 3 Credit Hours.**

This course is a further exploration and understanding of the visual language, principles, and design elements and processes used in landscape architecture. Students will apply elements and principles introduced in Foundation I to the design of real and imaginary spaces using modes of 2D, 3D drawings and model making. Ideas of abstraction, experience and time will be introduced and explored in design exercises. Students will advance freehand drawing, graphic and model making skills while also learning some basic digital media applications.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 1044|Minimum Grade of C-|May not be taken concurrently.

**LARC 1244. Surveying. 3 Credit Hours.**

Focuses on the fundamentals of plane surveying: basic measurement of distance, angle and elevation; use of basic surveying equipment: total station, levels and tapes, field notes; and basic computations: traverse closure and determination of areas.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 1544. Landscape Architecture Computer Technology I. 3 Credit Hours.**

An introduction to Computer Aided Drafting using AutoCAD. Focuses on learning the basic commands for drawing in two dimensions including: absolute and relative coordinates, working in layers, paper and model space, manipulation of text, and plotting. NOTE: Prior to fall 2016, the course title was "Introduction to CAD."

**Repeatability:** This course may not be repeated for additional credits.

**LARC 1982. Honors Projects. 1 to 3 Credit Hour.**

For exceptional students interested in pursuing independent, in-depth study. Credits are based on the quantity and quality of work fulfilling the established course outline.

**Cohort Restrictions:** Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

**Course Attributes:** HO

**Repeatability:** This course may be repeated for additional credit.

**LARC 2124. Design Process. 3 Credit Hours.**

An introduction to the design process: inventory, analysis, program development, and conceptual design. Students apply the design process to spatial composition of small scale site design projects.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 1142|Minimum Grade of D-|May not be taken concurrently.

**LARC 2143. Landscape Architecture Design Studio I. 6 Credit Hours.**

Development of the student's comprehension of important elements in the ecologically based landscape design process. Projects lead students through typical design processes that include inventory and analysis, case studies, evaluation of opportunities and constraints, development of conceptual ideas, and detailed landscape designs. The design process is applied to a variety of small scale, urban and suburban site design projects. Using a combination of computer, mechanical and free hand presentation techniques, studio work typically includes: site inventory and research and analysis; program development; concept alternatives; master planning; and detail design studies.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 1142|Minimum Grade of D-|May not be taken concurrently  
OR LARC 1144|Minimum Grade of D-|May not be taken concurrently.

**LARC 2144. Landscape Architecture Design Studio II. 6 Credit Hours.**

The development of mixed use and sustainable communities within the natural, social, cultural and economic context of development or redevelopment. Investigations of large-scale land use and community planning projects in the urban or rural context. Real world projects range from preparing community based revitalization plans and designs for inner city neighborhoods or redeveloping a rural or suburban area.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 2143|Minimum Grade of D-|May not be taken concurrently.

**LARC 2241. Landscape Engineering I. 3 Credit Hours.**

Emphasizes the basic concepts, ideas, and techniques that deal with the visual, functional, and ecological aspects of grading and landform manipulation.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Horticulture, Landscape Architecture.

**Degree Restrictions:** Must be enrolled in one of the following Degrees: Bachelor of Science.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 1142|Minimum Grade of D-|May not be taken concurrently

OR LARC 1144|Minimum Grade of D-|May not be taken concurrently.

**LARC 2242. Landscape Engineering II. 3 Credit Hours.**

Introduction to the principles, processes, and techniques of site engineering for "soft" elements of landscape architecture. Based on the understanding and appreciation of ecological principles, functional requirements, and aesthetic considerations, students learn elements of design/engineering such as advanced grading, storm water management, and road alignment.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 2241|Minimum Grade of D-|May not be taken concurrently.

**LARC 2243. Landscape Engineering II. 3 Credit Hours.**

This landscape engineering course for landscape architects integrates technical skills, esthetics considerations and sustainability in the use and applications of the 'hardscape' elements of landscape architecture such as walls, paving, steps, etc., as well as advanced landform design and stormwater management.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 2241|Minimum Grade of D-|May not be taken concurrently.

**LARC 2457. American Traditions of Landscape Architecture. 3 Credit Hours.**

Examination of ideas, needs, visions, and values that have shaped both the designed and the common landscapes of America from the colonial period until the early 1900s.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 2496. Landscape Traditions. 3 Credit Hours.**

Presents a comprehensive overview of western civilization's efforts to create useful, beautiful, and symbolic spaces from ancient times until the modern day. NOTE: This is a writing intensive class. Students are urged to complete English 0802 or equivalent prior to registering for this class.

**Course Attributes:** WI

**Repeatability:** This course may not be repeated for additional credits.

**LARC 2551. Landscape Architecture Computer Technology II. 3 Credit Hours.**

This course builds on the basic computer knowledge introduced in LA Computer Technology I. The focus of this course is on learning the Adobe Suite applications to aid in developing professional quality presentations and exploring how to select the most useful software for a particular project.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 1544|Minimum Grade of C-|May not be taken concurrently.

**LARC 2553. Landscape Architectural Computer Graphics. 3 Credit Hours.**

Focuses on the use of digital media for visual presentation. Exposes students to image editing, publishing, and/or computer-aided design programs. Students learn how to create illustrative and technical drawings and/or portfolio work. NOTE: Course may be repeated once for a maximum of six credits.

**Repeatability:** This course may be repeated for additional credit.

**Pre-requisites:**

LARC 1544|Minimum Grade of D-|May not be taken concurrently.

**LARC 2564. Landscape Architecture Computer Technology III. 3 Credit Hours.**

Addresses more advanced concepts in two-dimensional AutoCAD and introduces CAD applications as three-dimensional tools in the generation of perspective drawings. Includes plotting in color and integration with other graphic applications. NOTE: Prior to fall 2016, the course title was "Advanced CAD."

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 1544|Minimum Grade of D-|May not be taken concurrently.

**LARC 2754. Water Design in the City. 2 Credit Hours.**

Cities throughout history have thrived or failed because of water. Every society's ability to secure its water supply, clean stormwater, and address flooding issues impacts the quality of life of its citizens and the aesthetic dimension of the urban landscape. Learn about artistic strategies for dealing with urban stormwater and how cities throughout the U.S. and the world are redesigning their streets, parks, and buildings to more effectively manage urban water resources. Discover aspects of green infrastructure that address strategies for water filtration, conveyance, and storage. The City of Philadelphia is the laboratory for the case studies and for building an understanding of artful stormwater management strategies.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 2758. Summer Field Ecology. 3 Credit Hours.**

Students learn to "read" the landscape through the exploration of the landscape provinces of the Delaware River Basin. Through visiting natural landscapes in each of the sub-regions, students see how the relationship of geology, soils, hydrology, plant communities, and land use history reveals an understanding of the visual characteristics, opportunities, and constraints of development inherent in the natural environment.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

BOT 1112|Minimum Grade of D-|May not be taken concurrently.

**LARC 2870. Special Topics. 1 to 3 Credit Hour.**

Variable offerings from semester to semester of selected topics not part of the regular listing of courses. The topic can be in an area of specialization of a faculty member or an examination of a current development in the field. NOTE: Students may obtain a description of the current version at the department office and in the schedule of classes. This course may be repeated for credit.

**Repeatability:** This course may be repeated for additional credit.

**LARC 2885. Internship. 1 Credit Hour.**

This internship requires a minimum of one semester or 350 hours of employment with a landscape architecture firm, landscape contractor, or in a related field. During the internship, students should test concepts developed in class with real work experience. NOTE: Work should be completed between sophomore and junior years.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Landscape Architecture.

**Class Restrictions:** May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

**Degree Restrictions:** Must be enrolled in one of the following Degrees: Bachelor of Science.

**Repeatability:** This course may be repeated for additional credit.

**LARC 3145. Landscape Architecture Design Studio III. 6 Credit Hours.**

Addresses issues pertinent to the design of parks and open space. Students analyze the site context in terms of open space and recreational opportunities, study and discuss comparable park systems and park designs. and may work closely with community groups and elected officials in developing an appropriate design program. The goal is to apply an ecological design process to the design of a park appropriate for a particular neighborhood context.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 2144|Minimum Grade of D-|May not be taken concurrently.

**LARC 3146. Landscape Architecture Design Studio IV: Design/Build. 6 Credit Hours.**

Provides individuals the opportunity to build and implement elements of their own design. Students prepare the necessary construction documentation and then actually construct their designs. Working with construction materials enables the student to learn the opportunities and limitations of these materials. This hands-on approach is vital to understanding the relationship between design and implementation processes.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

(LARC 3145|Minimum Grade of D-|May not be taken concurrently)  
AND (LARC 2242|Minimum Grade of D-|May not be taken concurrently)  
OR LARC 2243|Minimum Grade of D-|May not be taken concurrently)

**LARC 3243. Landscape Engineering III. 3 Credit Hours.**

Includes the principles, processes, and techniques of site engineering for the "hard" elements of landscape architecture such as walls, paving, steps, decks, etc. Based on the understanding and appreciation of ecological principles, functional requirements, and aesthetic considerations. Includes elements of design/engineering such as siting buildings, grading design of simple structures, understanding the nature of construction materials, and the preparation of working drawings.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 2242|Minimum Grade of D-|May not be taken concurrently.

**LARC 3345. Planting Design. 3 Credit Hours.**

Considers the integration of plants into the design process and emphasizes scale, development density, natural site characteristics, natural plant associations, and individual plant characteristics. Planting design studies in a variety of contexts are included.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

(LARC 1142|Minimum Grade of D-|May not be taken concurrently)  
OR LARC 1144|Minimum Grade of D-|May not be taken concurrently)  
AND (HORT 1212|Minimum Grade of D-|May not be taken concurrently)

**LARC 3644. Professional Practice. 3 Credit Hours.**

Study of ethics, current business practices, contract documentation, bids, cost estimates, specifications, and interdisciplinary relationships. Seeks to teach the student how to set priorities, manage people, and execute landscape projects.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Landscape Architecture.

**Class Restrictions:** Must be enrolled in one of the following Classes: Junior 60 to 89 Credits, Senior 90 to 119 Credits, Senior/Fifth Year 120+ Credits.

**Degree Restrictions:** Must be enrolled in one of the following Degrees: Bachelor of Science.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 3665. Grant Writing. 3 Credit Hours.**

Develop skills in researching grant funding possibilities, identifying and developing appropriate restoration projects with potential for grant funding, and writing grant proposals.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 3789. Landscape Restoration Workshop. 3 Credit Hours.**

Students learn principles and practices of ecological restoration through hands-on experience. They visit restored landscapes, conduct field measurements in an old growth forest, and contribute to a restoration project on the Ambler Campus. An overnight camping trip is required. By the end of the course, students understand various technical strategies involved in restoration through drawing and writing their field observations, assessing proper techniques for restoration, and then implementing those techniques on a real site.

**Repeatability:** This course may not be repeated for additional credits.

**LARC 3882. Independent Study. 1 to 3 Credit Hour.**

Explorative study or research not met in any established course. Initiated by the student, the project must be sponsored by a faculty member with an approved agreement outlining the content and requirements, including readings, meetings, and papers. NOTE: Special authorization required for all students. Students must have the agreement of a faculty sponsor and must submit a formal proposal to this faculty member and Department before registering for the course.

**Field of Study Restrictions:** Must be enrolled in one of the following Majors: Landscape Architecture.

**Degree Restrictions:** Must be enrolled in one of the following Degrees: Bachelor of Science.

**Repeatability:** This course may be repeated for additional credit.

**LARC 4147. Landscape Architecture Design Studio V: Fall Senior Studio. 6 Credit Hours.**

Focuses on large-scale, complex planning projects dealing with growth management issues and an understanding of all phases of the planning process. The scope of the project includes analysis and evaluation of existing conditions, programming, and creation of conceptual plans, master plans, and detail designs.

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 3146|Minimum Grade of D-|May not be taken concurrently.

**LARC 4198. Landscape Architecture Design Studio VI: Spring Senior Studio. 6 Credit Hours.**

The final senior studio deals with a variety of projects that may include landscape design projects involving fine arts, urban design, and town planning. Students are challenged to achieve a comprehensive understanding of the ideas, processes, and concepts. NOTE: Fulfills the capstone writing intensive requirement for the Landscape Architecture major.

**Course Attributes:** WI

**Repeatability:** This course may not be repeated for additional credits.

**Pre-requisites:**

LARC 4147|Minimum Grade of D-|May not be taken concurrently.