Landscape Architecture (LARC)

Courses
LARC 5551. Intermediate Computer Graphics. 3 Credit Hours.
Builds upon computer knowledge introduced in Design Communications/Introductory Design Studio I or equivalent. Introduction to Geographic Information System (GIS), intermediate level computer-aided design (CAD), and Photoshop applications to aid in developing and presenting designs.
How to select the most useful software for a particular design problem.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 5564. Advanced CAD. 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 enrolling, students are expected to have introductory level skills in AutoCAD: basic commands for drawing in two dimensions including absolute and relative coordinates, working in layers, paper and model space, manipulation of text, and plotting.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 5565. 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.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8141. Design Communications/Introductory Design Studio I. 4 Credit Hours.
This studio course explores the development of graphic techniques and introduces students to the design process commonly used in landscape architecture and horticulture. Students develop a small-scale design project using a variety of graphic skills. Plans, sections, and elevations are drawn, and their functions are understood in design representation.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
Pre-requisites: LARC 8141|Minimum Grade of C-|May not be taken concurrently.

LARC 8144. Landscape Design Studio II. 4 Credit Hours.
This course focuses on the development of mixed use and sustainable communities within the natural, social, cultural, and economic context of development or redevelopment. Large-scale land-use and community planning projects in the urban or rural context are investigated. Real world projects range from preparing community-based revitalization plans and designs for inner-city neighborhoods, to the creation of a new town development set in a bucolic landscape. Students learn to develop creative ideas through illustrative techniques. They engage in a complete design process, including analysis, conceptual, and finished design of an outdoor space.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8151. Woodland Design Studio. 4 Credit Hours.
Students apply the knowledge and methodologies presented in LARC 8751: Northeastern Woodland Ecosystems. Projects, varying in size and location, allow students to synthesize and advance their understanding of the ecosystem. Finished design projects are presented in graphic, written, and verbal forms and may be implemented in the field. Students develop the analytical and technical skills necessary for the inventory, analysis, programming, and design of a woodland landscape. Fieldwork, site inventory and analysis, identification of opportunities and constraints, and program development, as well as hand and computer drawing, are included.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8351, LARC 8751
Repeatability: This course may not be repeated for additional credits.

LARC 8152. Wetland/Riparian Design Studio. 4 Credit Hours.
This studio course complements material introduced in LARC 8752: Wetland Ecology. Students are required to draw on and implement knowledge about wetland ecosystems to develop a site design. Field visits, inventory, analysis, and monitoring are used to gain a thorough knowledge of the site for use as the basis for a design. Identification of opportunities and constraints, program development, and hand and computer drawing are extensively used. Students learn the critical thinking and artistic judgment necessary for developing a design for wetland habitat restoration.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8752
Repeatability: This course may not be repeated for additional credits.
LARC 8153. Public Lands Design Studio. 4 Credit Hours.
Material presented in LARC 8352: Policies of Public Design Seminar is addressed in this design studio, which focuses on a public project, such as a metropolitan park or regional or state conservation area. Students are required to understand and integrate the diverse values and views held by various stakeholders. In addition to typical design studio components such as site inventory and analysis, projects may require students to interview, confer, and present to public audiences to seek feedback and approval of designs. By the end of the course, students have attended and/or presented at public meetings and have developed a design for the public realm.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8353
Repeatability: This course may not be repeated for additional credits.

LARC 8241. Landscape Engineering I. 3 Credit Hours.
The course emphasis is on the basic concepts, ideas, and techniques that deal with the visual, functional, and ecological aspects of grading and landform manipulation. Students learn the technical skills necessary for grading a landscape to ensure proper drainage.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8242. Landscape Engineering II. 3 Credit Hours.
This course is an introduction to the principles, processes, and techniques of site engineering for the land forms 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. Different approaches to grading and water management are studied, and a set of grading plans is developed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
LARC 8241|Minimum Grade of C-|May not be taken concurrently.

LARC 8351. Aesthetics of Ecological Design Seminar. 1 Credit Hour.
Students learn about the emerging aesthetic associated with ecological design. Form and psychological experience of design are presented through readings and discussion. Students understand the importance of peer-reviewed research as it relates to design and aesthetics.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8151, LARC 8751
Repeatability: This course may not be repeated for additional credits.

LARC 8353. Policies of Public Design Seminar. 1 Credit Hour.
This course explores, through discussions and case studies, designing in the public sector. Students practice skills required for balancing dissimilar groups, value systems, and policies to ensure a successful project.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8153
Repeatability: This course may not be repeated for additional credits.

LARC 8356. Landscape Traditions. 3 Credit Hours.
A comprehensive overview of Western civilization's efforts to create useful, beautiful, and symbolic spaces from ancient times until the modern day is presented. Students learn to critically assess landscapes through written research papers and oral presentations.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8552. Research Design Methods. 3 Credit Hours.
Master of Landscape Architecture students gain an understanding of research design methods. Students conduct a research project and write a paper that summarizes their research study and findings.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

LARC 8644. Professional Practice. 3 Credit Hours.
This course focuses on the study of ethics, current business practices, contract documentation, bids, cost estimates, specifications, and interdisciplinary relationships. It seeks to teach the student how to set priorities, manage people, and execute landscape projects. Students gain an understanding of different professional avenues and opportunities and develop a case study/interview of a firm or public agency.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
(LARC 8141|Minimum Grade of C-|May not be taken concurrently
AND LARC 8241|Minimum Grade of C-|May not be taken concurrently).
LARC 8751. Northeastern Woodland Ecosystems. 3 Credit Hours.
The course presents terrestrial forest ecosystems and the biotic and abiotic factors that affect them. Students learn the components of forest ecosystems, including degradation factors and restoration concepts. Field trips allow students to observe and document a local forest ecosystem.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8151, LARC 8351
Repeatability: This course may not be repeated for additional credits.

LARC 8752. Wetland Ecology. 3 Credit Hours.
The course introduces the ecology of traditional wetlands, such as salt marshes and bogs. Students gain an understanding of riparian edges and shorelines and the measures necessary for protecting and/or restoring them. Site visits are required.
Field of Study Restrictions: Must be enrolled in one of the following Majors: Landscape Architecture
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Co-requisites: LARC 8152
Repeatability: This course may not be repeated for additional credits.

LARC 8753. Invasive Species Management. 3 Credit Hours.
Students learn to identify and assess eradication strategies for local invasive plant species. Traditional chemical/biological methods and non-traditional methods are discussed. By the end of the semester, students have developed an invasive species management plan for a local site.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8755. Native Plant Communities. 3 Credit Hours.
The course examines native and naturalized tree, shrub, and/or herbaceous plant community structure. Restoration processes are explored relevant to maintaining healthy plant communities. Discussion centers around growth, habit, and on-site propagation during restoration. Students learn to distinguish between native and non-native plant communities and vital characteristics associated with plant community health.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8789. 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.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

LARC 8860. Topics in Landscape Architecture. 3 Credit Hours.
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.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

LARC 8870. Topics in Landscape Architecture. 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.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

LARC 8889. Restoration Monitoring Workshop. 3 Credit Hours.
This field course introduces methods for monitoring the process of a restoration project and the corrective actions needed to ensure a positive restoration. It includes strategies for pre- and post-installation monitoring. By the end of the semester, students understand issues associated with monitoring and maintaining the health of a restored ecosystem.
Field of Study Restrictions: Must be enrolled in one of the following Majors: Landscape Architecture
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Landscape Arch
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
LARC 8753|Minimum Grade of C-|May not be taken concurrently.

LARC 8873. Directed Reading/Study. 1 to 3 Credit Hour.
Advanced reading/study tutorial is arranged between the student and a faculty member. NOTE: A written contract with the faculty member and approval from the Chair of the Department are required.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
LARC 9995. Capstone Restoration Design Project. 3 Credit Hours.

Students develop an independent restoration design project requiring synthesis of all previous coursework, including methodologies, seminars, ecological knowledge, and design projects. Every project must incorporate research in three ways: (1) accomplishing a literature review; (2) selecting and applying a methodology; and (3) advancing the knowledge base in ecological restoration. Research is used to both guide and test the design project. Students develop a comprehensive report. The capstone project concludes with a verbal and graphic presentation as well as a report summarizing the implications of the design, including strategies for monitoring and adjusting the restoration over time. Note: Students must obtain the instructor’s approval of a project site and type no later than the first week of the semester, and must select a capstone committee comprised of three full-time instructors, one of which must be a member of the Department of Landscape Architecture and Horticulture.

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

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Degree Restrictions: Must be enrolled in one of the following Degrees: Master of Landscape Arch

Repeatability: This course may be repeated for additional credit.

Pre-requisites:
(LARC 5551|Minimum Grade of C-|May not be taken concurrently
OR CRP 5524|Minimum Grade of C-|May not be taken concurrently)
AND ((LARC 8151|Minimum Grade of C-|May not be taken concurrently
AND LARC 8152|Minimum Grade of C-|May not be taken concurrently
AND LARC 8153|Minimum Grade of C-|May not be taken concurrently
AND LARC 8351|Minimum Grade of C-|May not be taken concurrently
AND LARC 8353|Minimum Grade of C-|May not be taken concurrently
AND LARC 8751|Minimum Grade of C-|May not be taken concurrently
AND LARC 8752|Minimum Grade of C-|May not be taken concurrently
AND LARC 8753|Minimum Grade of C-|May not be taken concurrently
AND LARC 8755|Minimum Grade of C-|May not be taken concurrently
AND LARC 8789|Minimum Grade of C-|May not be taken concurrently)
AND (GUS 8097|Minimum Grade of C-|May not be taken concurrently
OR CRP 8513|Minimum Grade of C-|May not be taken concurrently
OR LARC 8552|Minimum Grade of C-|May not be taken concurrently).