

Landscape Architecture (LARC)

Course information contained within the Bulletin is accurate at the time of publication in June 2025 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

LARC 0841. Sustainable Design. 3 Credit Hours.

What can you do about climate change, other global environmental problems, and their resultant social and economic inequity? You can be better informed about the basis of these problems and well-equipped with real-life tools to help solve them. These are the tools of sustainable design. Through the lens of scientific principles and the scientific method, you will learn the causes and effects of climate change and human impacts on the environment. You will examine the laws of matter and energy, biogeochemical cycles, and the concepts of biodiversity and explore how humans shape our environment through planning and design. You will explore physical design solutions and research existing and alternative green approaches to complex systems including agriculture, energy production, supply chains, transportation networks, landscape design, and architecture. Your research will allow you to critically compare the ecological, social, and economic impacts of these systems and work on a design project that proposes ethical, ecologically sound solutions. This course will inform and empower you to accurately articulate causes and challenges of climate change so that you can apply sustainable design strategies in your personal and professional lives, preparing you for global citizenship as an agent of change in real-world communities. 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, SE, SF

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 four to six 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, SE, SF, SP, SS

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.

Course Attributes: SE, SF

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.

Course Attributes: SE, SF

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: Minimum grade of C- in LARC 1044.

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 modeling, mapping, drafting, and representation software that is currently used in landscape architectural practice. Focuses on learning the basic commands for drawing, rendering, and formatting digital representations of work for presentations.

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.

Course Attributes: HO

Repeatability: This course may be repeated for additional credit.

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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of D- in (LARC 1142 or LARC 1144)

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.

Course Attributes: SF

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

Pre-requisites: Minimum grade of D- in LARC 2143.

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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of D- in (LARC 1142 or LARC 1144)

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.

Course Attributes: SE, SI

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

Pre-requisites: Minimum grade of D- in LARC 2241.

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 civilization's efforts to create useful, beautiful, and symbolic spaces and places 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: Minimum grade of C- in LARC 1544.

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: Minimum grade of D- in LARC 1544.

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

Addresses more advanced concepts within and between drafting, rendering, modeling, mapping, and representation software that are commonly employed in landscape architectural practice. Products are project-based and prepare students for professional standards.

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

Pre-requisites: Minimum grade of D- in LARC 1544.

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.

Course Attributes: SE, SF

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.

Course Attributes: SE, SF

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

Pre-requisites: Minimum grade of D- in BOT 1112.

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.

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.

Course Attributes: SF

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

Pre-requisites: Minimum grade of D- in LARC 2144.

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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of D- in LARC 3145 and (LARC 2242 or LARC 2243)

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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of D- in LARC 2242.

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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of D- in (LARC 1142 or LARC 1144), LARC 3146, and HORT 1212.

LARC 3644. Professional Practice. 3 Credit Hours.

This course focuses on codes of professional and environmental ethics, the requirements of professional licensure, current business practices, and current and emerging challenges in landscape architectural practice. The course emphasizes the leadership role of landscape architects on interdisciplinary design teams. Students gain an understanding of different professional avenues and opportunities.

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.

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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of D- in LARC 3146.

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: SI, WI

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

Pre-requisites: Minimum grade of D- in LARC 4147.

LARC 5085. Landscape Architecture Internship. 1 to 3 Credit Hour.

This course expands students' knowledge and professional experience through internships in landscape design, ecological restoration, horticulture, or a related field. Students will be exposed to methods of practice and design thinking and have the opportunity to integrate academic learning with practical work experience, thereby broadening his or her skills and perspectives. The course requires that the student prepare a report in a format agreed upon with the course coordinator.

Repeatability: This course may be repeated for additional credit.

LARC 5544. Landscape Architecture Computer Technology I. 3 Credit Hours.

An introduction to modeling, mapping, drafting, and representation software that is currently used in landscape architectural practice. Focuses on learning the basic commands for drawing, rendering, and formatting digital representations of work for presentations.

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

LARC 5551. Landscape Architecture Computer Technology II. 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.

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

LARC 5564. Landscape Architecture Computer Technology III. 3 Credit Hours.

Addresses more advanced concepts within and between drafting, rendering, modeling, mapping, and representation software that are commonly employed in landscape architectural practice. Products are project-based and prepare students for professional standards.

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

Pre-requisites: Minimum grade of D (except where noted) in (LARC 1544 or LARC 5544 (C- or higher))

LARC 5665. 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 8141. Design Communications/Introductory Design Studio I. 4 to 6 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.

Course Attributes: SI

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

LARC 8144. Landscape Design Studio II. 4 to 6 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.

Course Attributes: SI

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

Pre-requisites: Minimum grade of C- in LARC 8141.

LARC 8151. Woodland Design Studio. 4 to 6 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.

Co-requisites: LARC 8351, LARC 8751.

Course Attributes: SF

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

LARC 8152. Wetland/Riparian Design Studio. 4 to 6 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.

Course Attributes: SF

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

Pre-requisites: Minimum grade of C- in LARC 8751.

LARC 8153. Public Lands Design Studio. 4 to 6 Credit Hours.

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.

Course Attributes: SF

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.

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 landscape architectural site engineering. Based on the understanding of ecological principles, functional requirements, and aesthetic considerations, students learn essential elements of construction drawings that are typically required for implementation.

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

Pre-requisites: Minimum grade of C- in LARC 8241.

LARC 8351. Aesthetics of Ecological Design Seminar. 1 to 2 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.

Co-requisites: LARC 8151, LARC 8751.

Course Attributes: SF

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

LARC 8355. Capstone Seminar. 1 Credit Hour.

The LARC 8355 Capstone Seminar is an introduction to, and preparation for LARC 9995, Capstone Restoration Design Project. The Capstone Seminar objectives include defining the research topic and specific project site, in addition to establishing the scope and goals of the proposed project. Students conduct a thorough site inventory and analysis, identify research resources and precedents, contact site stakeholders and formulate a design program. All these components are further developed in LARC 9995 in the following spring semester.

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

Pre-requisites: Minimum grade of C- in (LARC 5551, LARC 8151, LARC 8152, LARC 8153, LARC 8242, LARC 8351, LARC 8751, and LARC 8552)

LARC 8496. Landscape Traditions. 3 Credit Hours.

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

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.

Repeatability: This course may be repeated for additional credit.

LARC 8644. Professional Practice. 3 Credit Hours.

This course focuses on codes of professional and environmental ethics, the requirements of professional licensure, current business practices, and current and emerging challenges in landscape architectural practice. The course emphasizes the leadership role of landscape architects on interdisciplinary design teams. Students gain an understanding of different professional avenues and opportunities.

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

Pre-requisites: Minimum grade of C- in (LARC 8141 and LARC 8241)

LARC 8751. Northeastern Ecosystems. 3 Credit Hours.

This course presents terrestrial forest and traditional wetland ecosystems, such as salt marshes and bogs, and the biotic and abiotic factors that affect them. Students learn the components of forest ecosystems, including degradation factors and restoration concepts; riparian edges and shorelines, and the measures necessary for protecting and/or restoring each. Field trips and site visits allow students to observe and document local ecosystems.

Co-requisites: LARC 8151.

Course Attributes: SF

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

Pre-requisites: Minimum grade of C- in HORT 8261.

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.

Co-requisites: LARC 8152.

Course Attributes: SF

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.

Course Attributes: SF

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 a unique ecosystem and contribute to a restoration project on a local site(s). 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.

Course Attributes: SF

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.

Course Attributes: SI

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.

Repeatability: This course may be repeated for additional credit.

LARC 8889. Landscape Restoration Monitoring and Management. 3 Credit Hours.

This field course introduces methods for monitoring the process of an ecological restoration project and the corrective actions needed to ensure a positive restoration. Students learn principles and practices of ecological restoration through hands-on experience, drawing and writing, and field observations. They visit restored landscapes, conduct field measurements in a unique ecosystem, and may contribute to a restoration project on a local site(s). Strategies for pre- and post-installation monitoring are presented. By the end of the course, students understand various technical strategies involved in restoration, can assess restoration techniques and issues associated with monitoring and maintaining the health of a restored ecosystem, know the components of a restoration plan, and have developed a plan for a real site.

Course Attributes: SF

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

Pre-requisites: Minimum grade of C- in HORT 8261 and LARC 8751.

LARC 9883. 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.

Repeatability: This course may be repeated for additional credit.

LARC 9995. Capstone Restoration and Design Project. 1 to 6 Credit Hour.

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.

Course Attributes: SF

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of C- in LARC 5551, LARC 8151, LARC 8152, LARC 8153, LARC 8242, LARC 8351, LARC 8355, LARC 8552, LARC 8751, and LARC 8889.