Land, Air and Water Resources is a multidisciplinary department with faculty who specialize in atmospheric, plant, environmental, soil, hydrology, and water engineering. Teaching and research focus on both agricultural forestry, natural ecosystems, climate change and environmental science. The faculty contribute to numerous other undergraduate and graduate programs in the Colleges of Letters and Science, Engineering, and Agricultural and Environmental Sciences.

Major Programs. Undergraduates in the department major in Atmospheric Science, Environmental and Resources Sciences, Environmental Science and Management, and Hydrology, and Soil and Water Science; see http://lawr.ucdavis.edu/academic_programs.htm.

Undergraduate Advising Center is located in 1150 Plant and Environmental Sciences Building 530-752-1603.

Graduate Study. Graduate work is offered in the area of Atmospheric Science, Hydrologic Sciences, and Soils and Biogeochemistry. For detailed information, call 530-752-1669 or see http://lawr.ucdavis.edu/academic_programs.htm.

Courses. See courses listed under Atmospheric Science, Hydrologic Sciences, Hydrology, Environmental Resource Management, Environmental Science and Management, and Soil Science. See also the websites listed above.

Landscap Architecture

College of Agricultural and Environmental Sciences (Department of Human Ecology)
Patsy Ebanks Owens, M.L.A., Chairperson, Human Ecology, Landscape Architecture, and Environmental Design

Faculty
Elizabeth Boults, M.L.A., Continuing Lecturer
Steven E. Greco, Ph.D., Associate Professor
Eric Larsen, Ph.D., Associate Research Scientist
Jill Loux, Ph.D., Associate Adjunct Professor
Brett Milligan, M.L.A., Assistant Professor
N. Claire Napawan, M.L.A., Assistant Professor
Lorence Oki, Ph.D., Associate Specialist in Cooperative Extension
Patsy Ebanks Owens, M.L.A., Professor
David de la Pena, Ph.D., Assistant Professor
Michael Rios, Ph.D., Associate Professor
Sherry-Ann Simpson, Ph.D., Assistant Professor
Stephan Wheeler, Ph.D., Associate Professor

Emeriti Faculty
Mark Francis, M.L.A., Professor Emeritus
Dean MacCannell, Ph.D., Professor Emeritus
Heath Massey, M.F.A., Professor Emerita
E. Byron McCulley, B.S.L.A., Continuing Lecturer Emeritus
Edward S. McNiel, M.L.A., Senior Lecturer, SOE Emeritus
Robert L. Thayer, Jr., M.A., Professor Emeritus

The Major Program

Landscape architecture is the planning and design of land areas where human use requires adaptation or conservation of the environment. Students who study landscape architecture are concerned about the welfare of the environment and the people who use and shape it. They are capable of solving physical problems and are able to visualize and think in terms of spaces and three-dimensional concepts. The program is fully accredited by the Landscape Architecture Accreditation Board (LAAB) which is the only organization professionally sanctioned to grant landscape architectural accreditations in the United States. The program was last reviewed in 2012.

The Program. The curriculum balances creativity and visual and spatial skills with technological expertise and a thorough background in physical, natural, and social sciences. Students develop proficiency at problem solving relating to design of parks, public spaces, energy-efficient neighborhoods, land reclamation projects, city and regional planning, and landscape planning for wilderness and scenic regions, coastal and riparian environments, and agricultural landscapes. The program stresses a process-oriented approach to design and emphasizes environmental and community values.

Preparatory Requirements. Students are admitted to the landscape architecture major only after submitting a portfolio for review and selection by the faculty. Contact the Landscape Architecture Advising Office for further information in 135 Hunt Hall 530-754-8628.

Career Alternatives. Graduates may find jobs in private landscape architectural firms or public agencies, non-profit organizations, and corporations employing landscape architects. The landscape architecture major provides the student with excellent preparation for graduate school or career development in a wide range of environmental and design-related fields.

B.S. Major Requirements:

<table>
<thead>
<tr>
<th>Major Subject Matter</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>Preparatory</td>
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<tr>
<td>English Writing</td>
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<tr>
<td>Communication</td>
<td>4</td>
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<tr>
<td>Biological Sciences</td>
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<td>Environmental Science</td>
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<td>One course from:</td>
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<td>Mathematics 16A;</td>
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<td>Statistics 13;</td>
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<td>Computer Science 10</td>
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<td>One course from:</td>
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<td>Chemistry 2A, 10;</td>
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<td>Physics 1A, 10;</td>
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<tr>
<td>Geology 1;</td>
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<td>Soil Science 103</td>
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<td>Two courses satisfying Social Sciences general education requirement</td>
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<tr>
<td>Two courses satisfying Arts and Humanities general education requirement</td>
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<td>Landscape Architecture 1, 2, 3, 21, 30, 50, 60, 70</td>
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Depth Subject Matter

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<td>Landscape Architecture 160, 161, 170, 171</td>
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<td>Three studios from Landscape Architecture 191</td>
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<td>[Honors alternative: Landscape Architecture 191; Landscape Architecture 102, Honors Thesis (landscape Architecture 199)]</td>
<td>20</td>
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<td>Landscape Architecture 120 or 150</td>
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<td>Landscape Architecture 190 (three quarters)</td>
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<tr>
<td>Psychology 153</td>
<td>4</td>
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<tr>
<td>Environmental Science 133, 105, 8</td>
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<td>Restricted Electives</td>
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<td>Select 20 units of upper division courses in consultation with adviser</td>
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<td>Total Units for the Major</td>
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</tbody>
</table>

Major Adviser. Stephen Wheeler
Advising Center is located in 135 Hunt Hall 530-754-8628.

Graduate Study. Graduate-level landscape architecture courses are designed to assist students pursuing graduate programs in landscape architecture or related disciplines.

Graduate courses are taught by assistant professors, associate professors, and full professors. Courses are designed to provide an understanding of the design process through the use of computer-aided drafting, rendering, desktop publishing, and photorealistic simulation.

Graduates may find jobs in landscape architecture, urban design, or related fields.

Courses in Landscape Architecture (LDA)

Lower Division

1. Introduction to Environmental Design (4)
   Lecture—3 hours; discussion—1 hour; term paper. Introduction to the role of design professionals in contributing to the built environment at a number of scales. Introduction to basic methods used by design professionals to evaluate design, plan, and manage landscapes and the built environment. Not open for credit to students who have taken course 40. GE credit: ArtHum or SciEng or SocSci, Wrt | AH or SE or SS, VL, WC, WE, I-I. (I.) Wheeler

2. Place, Culture and Community (4)
   Lecture—4 hours. Introduction to recognizing and reading cultural landscapes, and the application of cultural landscape meaning to the creation of contemporary built environments. Topics include patterns and influences relating to agriculture, military, transportation, housing, wilderness, recreation and tourism. GE credit: SocSci, Wrt | ACGH, SS, VL, WE, II-III. (I-I.) Wheeler

3. Sustainable Development: Theory and Practice (4)
   Lecture—2 hours; extensive problem solving—2 hours, discussion—1 hour. Origins, theoretical perspectives, and practical applications of the concept of sustainable development. Focus is placed upon the concept of the sustainable development at a number of scales (site, building, neighborhood, city, region, and nation) through lectures, sketch exercises, student projects, walking tours. GE credit: ArtHum or ACGH, SS, VL, WE, II-III. (I-I.) Wheeler

21. Environmental Design Visualization (5)
   Lecture—3 hours; laboratory/discussion—3 hours. Prerequisite: course 1. Restricted to Landscape Architecture majors. Major Adviser.

   Studio—8 hours; two all-day field trips. Prerequisite: course 21. Landscape architectural communications explored through the construction of computer-aided drafting, drafting, rendering, desktop publishing, and photorealistic simulation.

30. History of Environmental Design (4)
   Lecture—3 hours; discussion—1 hour. Prerequisite: course 1. Pass as one required to Pre-Landscape Architecture and Landscape Architecture majors or consent of instructor. History of Environmental Design across disciplines, including landscape architecture, planning, and cultural landscape meaning to the creation of contemporary built environments. Not open for credit to students who have taken course 40. GE credit: ArtHum or ACGH, SS, VL, WE, II-III. (I-I.) Wheeler

50. Site Ecology (4)
   Lecture—3 hours; laboratory—3 hours. Prerequisite: Biological Sciences 1A, 2A or 10 or an introductory course in biology, botany, or plant science; priority given to Landscape Architecture majors. Introduction to ecological concepts, including nutrient dynamics, population regulation, community structure, ecosystem function. Principles will be applied to human activities such as biological conservation, ecological restoration, landscape planning, and management. Weekly laboratory devoted to field exercises in local ecosystems. GE credit: SciEng, SE, VL, WE, SS, SS.

60. Landform and Grading Studio (6)
   Studio—8 hours; extensive problem solving. Prerequisite: course 1, 21, 30, 70. Restricted to Landscape Architecture major. Introduction of landform and topography as landscape medium and utilization of grading and drainage to design meaningful and functional spaces. Introduction to site analysis, site planning, and the conventions of grading & drain-
age, including contour manipulation and physical model building. GE credit: ArtHum or SciEng | AH or SE, VL, WE. III. (III.) Owens
61. AutoCAD for Landscape Architects (4) Lecture—2 hours; laboratory—4 hours. Prerequisite: Agricultural Management and Range Resources 21 or equivalent with consent of instructor. Priority given to Landscape Architecture majors. Introduction to computer-aided drafting (CAD) techniques and their application to landscape design. Drawing setup, layer control, basic drawing and editing commands, dimensional text styles, symbol libraries, and display commands used in the creation of landscape architectural drawings.
70. Introduction to Spacemaking (5) Lecture—3 hours; laboratory/discussion—3 hours. Prerequisite: course 1, 21, 30. Restricted to Pre-Landscape Architecture and Landscape Architecture majors. Introduction to basic principles of design towards the creation of space. Introduction to design methodologies and skills necessary to define, manipulate, and represent the built environment. Workshop in 2D computer graphic techniques and 3D computer modeling will make reinforcement of design principles.
98. Directed Group Study in Landscape Architecture (1-5) Prerequisite: consent of instructor. Directed group study. (P/NP grading only.)
99. Special Study for Undergraduates in Landscape Architecture (1-5) Prerequisite: consent of instructor. (P/NP grading only.)
Upper Division
102. Methods in Design and Landscape Research (4) Seminar—4 hours; term paper. Prerequisite: course 170, 171, 172, 180. Restricted to Landscape Architecture majors to pursue senior thesis project in the following quarter. Research, design, and planning methods employed in landscape architecture. Exercises allow students to design independent landscape research. Lectures provide a historical overview of research methodology. GE credit: ArtHum | AH, OL, VL, WE. II. (II.) Owens
120. Advanced Computer Applications (4) Studio—8 hours; two-all-day field trips. Prerequisite: course 21 or open to majors in Landscape Architecture. Introduction to computer-aided design, geographical information systems, and other advanced computer programs. —(III.) McNeil
140. Green Building, Design, and Materials (4) Lecture—2 hours; laboratory—4 hours. Prerequisite: course 21, 30, 50, 70. Restricted to Landscape Architecture majors only. Sustainable design and construction techniques in site and building design. Emphasizes real-world case studies, analysis of opportunities for actual sites, and application of LEED and Sustainable Sites green rating systems. GE credit: ArtHum or SciEng | AH or SE, VL, WE. (I.) Rios
141. Community Design & Planning (6) Lecture—2 hours; studio—6 hours. Prerequisite: course 21, 30, 50, 70. Restricted to Landscape Architecture majors. Introduction to community design and planning projects in landscape architecture projects. Incorporates social and cultural factors, public and community processes, theories and practices related to human-environment behavior, community involvement in design, social analysis, community engagement, accessibility, diversity and politics of place. GE credit: ArtHum or SciEng | ACGH, AH or SS, DD, OL, VL, WE. —(III.) Owens
142. Applying Sustainable Strategies (4) Lecture—3 hours; laboratory—3 hours; extensive problem solving. Prerequisite: course 3, 21, 30, 50, 70, 140, 141. Open to Sustainable Environmental Design Majors or by permission of instructor. Capstone class examines case studies and techniques of sustainable development. Student teams will develop detailed proposals for real-world sites. GE credit: ArtHum or SciEng or SocSci | AH or SE or SS, OL, VL, WE. III. (III.)
150. Introduction to Geographic Information Systems (4) Lecture—3 hours; laboratory—3 hours. Prerequisite: Plant Sciences 21 or equivalent with consent of instructor. Priority given to College of Agricultural and Environmental Science majors. Basic concepts, principles, and methods of GIS are presented. Data structures, database design, data creation, GPs, and spatial analysis techniques are emphasized. Lab topics include: online data sources, aerial photogra phy, GPS data input, suitability analysis, carto graphic design, and geographic communication. Not open for credit to students who have completed Applied Biological Systems Technology 180/Plant Sciences 180 or Applied Biological Systems Technol ogy 181N. (Same course as Applied Biological Systems Technology 150.) GE credit: SciEng | SE, VL.—I. (I.) Greco, Upadhyaya
160. Design and Build Studio (6) Studio—8 hours; extensive problem solving; field work. Prerequisite: course 1, 2, 3, 21, 30, 50, 70. Restricted to Landscape Architecture majors. Introduction to the spatial design and construction of small-scale projects. Hands-on approach to learning and understanding design decisions (including concrete, and stone) and methods in landscape construction, and the application of technical skills (including detailing, cost estimation, and specifications). GE credit: ArtHum or SciEng | AH, OL, VL.—I. (I.)
170. Site Planning and Design Studio (6) Studio—8 hours. Prerequisite: course 21, 30, 50, 70. Open to Landscape Architecture majors. Application of landscape planning and design skills to local landscapes. Analysis of social and environmental conditions in the field. Lectures link design projects to contemporary theories and practices. Includes workshops with computer-aided drafting. GE credit: ArtHum | AH, OL, VL.—I. (I.)
171. Urban Design and Planning Studio (6) Studio—8 hours. Prerequisite: course 21, 30, 50, 70. Restricted to Landscape Architecture majors. Studio design of urban landscapes at regional, sub-regional, and neighborhood scales. Focuses on understanding complex social, economic, and environmental factors, developing sustainability priorities, and applying them through design and policy. GE credit: ArtHum | ACGH, AH, OL, VL.—III. (III.)
180. Advanced Design and Planning Studio (6) Studio—8 hours; fieldwork; extensive problem solving. Prerequisite: course 60, 160, 170, 171, 172. Restricted to Landscape Architecture majors or consent of instructor. Application of advanced theories and methods of design and planning to real-world projects. May be repeated for up to 18 units of credit. GE credit: ArtHum or SciEng | AH, OL, VL.—I, II, III, (I, II, III)
180A. Special Topics in Landscape Architecture: Postmodern Landscapes (2) Lecture—2 hours. Prerequisite: upper division standing. Basic principles of critical theory and postmodern modes of analysis. Application to interpretation and change of design in the environment. Offered in alternate years. Not open for credit to students who have taken course 185.
180C. Special Topics in Landscape Architecture: Art of the Environment (2) Lecture—2 hours. Prerequisite: courses 1 and 30. Priority given to Landscape Architecture and Design majors. Introduction to environmental art. Encouragement of critical thinking about the intersection of art, the landscape and environmental issues. Offered in alternate years. —Massey Schenkman
180F. Special Topics in Landscape Architecture: Landscape Ecology (2) Lecture—2 hours. Prerequisite: course 50 or an introductory course in Ecology. Theories, major concepts and research methods of landscape ecology. Spatial structure, function and dynamics of various landscape types. Biological conservation, ecological restoration, and landscape planning, design, and management. Not open for credit to students who have taken Landscape Architecture 183. Offered in alternate years. GE credit: SciEng | SE, WE.—II. (II.) Greco
180G. Special Topics in Landscape Architecture: Sustainable Design and Regional Landscape Planning (2) Lecture—2 hours. Prerequisite: upper division standing. Theories, laws, and practices of community planning. Creation of livable and sustainable communities and natural landscapes. Smart growth, new urbanism, neo-traditional town planning, transit-oriented, and sustainable communities. Traditional master planning vs. participatory planning and design approaches. Offered in alternate years. GE credit: SocSci | ACGH, SS.—II. (II.) Loux, Wheeler
180L. Special Topics in Landscape Architecture: Environmental Design (2) Lecture—2 hours. Prerequisite: courses 1 and 30. Priority given to Landscape Architecture majors. Theories, basic techniques and applications for various systems by which landscapes can sustain life (both human and non-human) and culture over time. Offered in alternate years. GE credit: SL.—II. (II.) Wheeler, Loux
180S. Special Topics in Landscape Architecture: Social Factors in Landscape Architecture (2) Lecture—2 hours. Prerequisite: Psychology 155 and upper division standing. Concepts in environmental psychology as they relate to landscape architecture. Discussion of needs of various user groups of a land area. Introduction to past occupancy evaluations. Offered in alternate years. GE credit: SocSci | DD, SS.—Owens
180X. Special Topics in Landscape Architecture: Social Factors in Landscape Architecture (2) Lecture—2 hours. Prerequisite: Psychology 155 and upper division standing. Concepts in environmental psychology as they relate to landscape architecture. Discussion of needs of various user groups of a land area. Introduction to past occupancy evaluations. Offered in alternate years. GE credit: SocSci | DD, SS.—Owens
180L. Special Topics in Landscape Architecture: Public Open Space (2) Lecture—2 hours. Prerequisite: upper division standing. Intensive study of public open spaces, including parks, plazas, playgrounds, greenways and community gardens. Current issues associated with design and management of the public environment of cities. Offered in alternate years. GE credit: SocSci | DD, SS, WE.—Owens
180M. Special Topics in Landscape Architecture: Urban and Community Design (2) Lecture—2 hours. Prerequisite: upper division standing. Theories and methods of community and neighborhood design. Past and contemporary approaches including new urbanism, planned unit development, mixed use, pedestrian and transit-oriented development. Issues of open space and community form. Offered in alternate years.
180N. Special Topics in Landscape Architecture: Planting Design (2)
Lecture—2 hours. Prerequisite: upper division standing in Environmental Horticulture 6. Develop an understanding of the sensory, visual and functional importance of plants in the landscape. Visualization and generating creative planting plans. Offered in alternate years. Not open for credit to students who have taken course 156.

180O. Special Topics in Landscape Architecture: Current Issues in Landscape Architecture (2)
Lecture—2 hours. Prerequisite: course 1 and 30. Priority will be given to Landscape Architecture and Design majors. Study of current issues in landscape architecture with emphasis on design and/or design history. Offered in alternate years.

180P. Special Topics in Landscape Architecture: Water in Community Planning and Design (2)
Lecture—2 hours. Prerequisite: course 50 or equivalent with consent of instructor. Upper division standing or above. Priority given to Landscape Architecture majors. Theories, policies, methods, and resources related to the integration of water resources with urban/community planning and landscape design including urban water use/demand, quality, treatment, conservation, and stormwater management. Offered in alternate years.—Loux

180Q. Historic Preservation (2)
Lecture—2 hours. Prerequisite: upper division standing. Priority given to Landscape Architecture majors. Roots and present focus of historic preservation movement; current philosophies and laws governing preservation, restoration, and revitalization as they affect landscape architects. Offered in alternate years.—I, II, III; McNiel

181A. Postmodern Landscapes Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180A concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180A. Offered in alternate years.

181C. Art of the Environment Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180A concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180A. Offered in alternate years.—Massey

181F. Landscape Ecology Design and Planning Studio (3)
Studio—6 hours. Prerequisite: course 170; 180F must be taken concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects in ecology. Ecological principles and their application in biological conservation, ecological restoration, and landscape planning, design, and maintenance. Field trip required. Offered in alternate years. GE credit: SciEng | OL, VL, SE.—I, Greco

181G. Special Topics in Landscape Architecture: Land and Regional Land Planning Studio (3)
Studio—6 hours. Prerequisite: course 170, 181G concurrently. Applications of recent models and practices of urban planning and design to create sustainable cities, towns, villages, rural, and natural landscapes. Testing of models by creating plans and designs for new communities, and for urban infill, restoration or redevelopment projects. Field trip required. Offered in alternate years. GE credit: VL.—Loux, Wheeler

181H. The Bioregional Landscape Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 181H concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180H. Offered in alternate years.

181L. Regenerative Landscape Systems Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180L concurrently. Priority given to Landscape Architecture majors. Development of design theory and methods to real-world projects associated with course 180L. Offered in alternate years.

181J. Community Participation in Design: Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180J concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180J. Offered in alternate years. GE credit: VL

181P. Special Topics in Landscape Architecture: Social Factors in Landscape Architecture (2)
Lecture—2 hours. Prerequisite: Psychology 155 and upper division standing. Concepts in environmental psychology as they relate to landscape architecture. Discussion of research and various groups of a land area. Introduction to post occupancy evaluations. Offered in alternate years. GE credit: DD, OL, VL.—Owens

181Q. Special Topics in Landscape Architecture: Water in Community Planning and Design (2)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180Q concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180Q. Offered in alternate years.

181R. Urban and Community Design: Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180R concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180R. Offered in alternate years.

181S. Planting Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180S concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180S. Offered in alternate years.

181U. Current Issues Design and Planning Studio (3)
Studio—6 hours; one field trip required. Prerequisite: course 170; course 180U concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180U. Offered in alternate years.

181V. Special Topics in Landscape Architecture: Water in Community Planning and Design Studio (3)
Studio—6 hours. Prerequisite: courses 50 and 61 or equivalent courses with consent of instructor; course 170; course 180V concurrently. Priority given to Landscape Architecture majors. Application of design theory and methods to real-world projects associated with course 180V. Offered in alternate years.

181W. Special Topics in Landscape Architecture: Historic Preservation Studio (3)
Studio—6 hours. Prerequisite: junior standing in the Landscape Architecture course 180W concurrent. Methods and tools currently used by professional preservation architects and planners, including inventory and evaluation methods and traditional architectural design approaches. Field trip required. Offered in alternate years.—I, II, III; McNiel

190. Seminar in Landscape Architecture (1)
Seminar—1 hour. Lectures and discussion of critical issues in landscape architecture. May be repeated three times for credit. (P/NP grading only)—I, II, III

191. Landscape Architecture Planning & Design Studio (2)
Seminar—1 hour; workshop—3 hours. Prerequisite: course 1, 70, and 170 or consent of instructor. Priority to Landscape Architecture majors. Faculty initiated workshops featuring advanced studies and applications of original work in landscape architecture. May be repeated for up to 20 units of credit.—I, II, III, (I, II, III)

192. Internship in Landscape Architecture (1-12)
Internship. Prerequisite: senior standing in Landscape Architecture. Professional field experience in landscape architecture. May be repeated for a total of 12 units. (P/NP grading only.)

193A. Senior Project in Landscape Architecture (3)
Studio—6 hours. Prerequisite: senior standing in Landscape Architecture. Projects will focus on a critical area of landscape architectural design, planning, analysis, communication, or research. Limited enrollment. Required of all Landscape Architecture majors. (P/NP grading only)—II

193B. Senior Project in Landscape Architecture (4)
Studio—8 hours. Prerequisite: course 193A and senior standing in Landscape Architecture. Projects will focus on a critical area of landscape architectural design, planning, analysis, communication, or research. Limited enrollment. Required of all Landscape Architecture majors. (P/NP grading only)—I

197V. Tutoring in Landscape Architecture (1-5)
Tutoring—3-1.5 hours. Prerequisite: consent of instructor. Tutoring in Landscape Architecture courses. (P/NP grading only.)

198. Directed Group Study in Landscape Architecture (1-5)
Prerequisite: consent of instructor. Directed group study. (P/NP grading only.)

199. Special Study for Advanced Undergraduates in Landscape Architecture (1-5)
Prerequisite: consent of instructor. (P/NP grading only.)

Graduate

200. Citizenship, Democracy, & Public Space (4)
Seminar—4 hours. Prerequisite: graduate standing or consent of instructor. Introduction to seminal works in political theory, philosophy, and the social sciences that focus on citizenship and the public sphere; development of critical perspective regarding restructuring of public space in a pluralistic and global context; discussion of contemporary case studies. (Same course as Geography 230.)—III

201. Theory and Philosophy of the Designed Environment (4)
Seminar—4 hours. Prerequisite: course 140 or the equivalent, graduate standing or consent of instructor. Examines the major theories of environmental design. Epistemology of design serves as framework to examine modern landscape architecture, architecture, urban design and planning. Normative theories of design are reviewed along with the social and environmental sciences. Offered in alternate years.—II, Rios

202. Methods in Design and Landscape Research (4)
Seminar—4 hours. Prerequisite: Statistics 102 or the equivalent, graduate standing or consent of instructor. Explores many of the research and advanced design and planning methods employed in landscape architecture. Exercises provide the student
Landscape Restoration

with a vehicle for designing independent landscape research and creative activities. Lectures provide an historical overview of research methodology. Offered in alternate years. — Owens

204. Case Studies in Landscape Design and Research (4)
Seminar—4 hours; field trip required. Prerequisite: graduate standing. Architecture, Ecology, Geography or Community Development or consent of instructor. Real-world designed environment situations where creative activity and/or basic research is the primary product. May be repeated for credit for a total of 12 units. Offered irregularly.

205. Physical Planning and Design (4)
Lecture—2 hours; discussion—2 hours. Limited to graduate students. Regulation, design, and development of built landscape, planning and development processes, zoning and subdivision regulation, site planning, urban design goals and methods, public participation strategies, creatively designing landscapes to meet community and ecological goals. [Same course as Geography 233.] Offered irregularly. — Wheeler

210. Advanced Landscape Architecture Studio (4)
Laboratory—8 hours. Prerequisite: course 113 or the equivalent; graduate standing or consent of instructor. Explores students to real-world, designed-environment situations where creative activity and/or basic research is the primary product. Advanced landscape problems will be utilized at the site, urban or rural scale. Offered in alternate years.

220. Public Space and Culture (3)
Seminar—3 hours. Prerequisite: course 182 or the equivalent; graduate standing or consent of instructor. Explores the public environment of cities including their streets, parks, and squares. Public life and culture of American cities is examined and design responses to this culture evaluated. Typology is used to identify spaces. Offered in alternate years.

230. Landscape and Memory (4)
Seminar—4 hours; term paper. Prerequisite: graduate standing or consent of instructor. Theories of memory from other fields (critical theory, psychoanalysis, history) applied to landscape design, especially heritage and tourist sites. The relationships between place, memorial, and event. Offered in alternate years.

240. Historic, Cultural Landscapes: Concept, Perception, Preservation (4)
Seminar—4 hours. Prerequisite: graduate standing or consent of instructor. Historic cultural landscapes, as defined by the American Register of Historic Places. Identification and analysis of aerial extent, structured makeup, integrity, and historical significance using common and emerging methods and tools. Offered in alternate years. — McNiel

250. Life-Place: Bioregional Theory and Principles (4)
Seminar—3 hours; tutorial—1 hour. Prerequisite: graduate standing or consent of instructor. The emerging concept of bioregionalism as a hypothesis for environmental quality, theoretical structures and practical methods by which individuals and groups identify with naturally-bounded "life-places" or "bioregions" and strive to live respectfully and reciprocally within them. Offered in alternate years.

260. Landscape and Power (4)
Seminar—4 hours. Prerequisite: graduate standing or consent of instructor. How various representations of landscape have historically worked as agents of cultural power. Course framework is interdisciplinary, including studies of landscape representation in literature, art, photography, cartography, cinema, and landscape architecture. [Same course as Geology 252.] — I. (J.) Schenker

270. Environment and Behavior (4)
Seminar—3 hours; tutorial—1 hour. Prerequisite: graduate standing or consent of instructor. Psychology 144 recommended. Factors that influence human interaction with their surroundings and the mechanisms used for recognizing and addressing general and specific human needs in community design and development decisions. Offered in alternate years.

280. Landscape Conservation (3)
Seminar—3 hours. Prerequisite: department for prerequisite courses; graduate standing or consent of instructor. Focus is on land planning, design, and management techniques to further the goal of resource preservation. Examines current critical theory in the establishment and management of conservation areas. Offered in alternate years. —II. Greco

290. Graduate Seminar in Landscape Architecture (2)
Seminar—2 hours. Prerequisite: graduate standing and consent of instructor. Seminar on selected topics in landscape architecture research, analysis, planning, design, communication, or education. May be repeated for credit. (S/U grading only.)

297. Practicum in Landscape Architecture (1-10)
Independent study—1-10 hours. Prerequisite: graduate standing and consent of instructor. Opportunity for students to work directly in the field with academics at other institutions or with professionals in an office setting. Gives experience beyond the confines of campus and allows direct interaction with the community. (S/U grading only.)

298. Group Study (1-5)
Prerequisite: graduate standing and consent of instructor. (S/U grading only.)

299. Directed Individual Research for Graduate Students (1-2)
Requires consent of instructor. May be repeated for credit. (S/U grading only.)

Professional

396. Teaching Assistant Training Practicum (1-4)
Prerequisite: graduate standing. May be repeated for credit. (S/U grading only.) — II, III, IV, III

Landscape Restoration

[College of Agricultural and Environmental Sciences]
This minor is of particular interest to students majoring in Wildlife, Fish, and Conservation Biology, Environmental Science and Management, Landscape Architecture, Biological Sciences, Evolution and Ecology and Plant Biology. Biological Sciences 1C or Plant Sciences 2 is a prerequisite to some courses in the minor. The minor is sponsored by the Department of Plant Sciences.

Minor Program Requirements:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>Landscape Restoration</td>
<td>19-25</td>
</tr>
<tr>
<td>Select one of Environmental Science and Policy 155, Plant Biology 102, 117, 147, Plant Sciences 144</td>
<td>4-5</td>
</tr>
<tr>
<td>Select one of Environmental Horticulture 100, 130, 133, Plant Biology 119, Plant Sciences 176</td>
<td>4-5</td>
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<td>Owens</td>
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<tr>
<td>Soil Science 10 or 100</td>
<td>3</td>
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<tr>
<td>Environmental Horticulture 160 and 160L</td>
<td>4</td>
</tr>
<tr>
<td>Select one of Environmental Horticulture 150, Environmental Science and Policy 155, Landscape Architecture 180F, 180H, 180I, Plant Sciences 130, Wildlife, Fish, and Conservation Biology 155</td>
<td>2-4</td>
</tr>
<tr>
<td>Plant Sciences 192</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor Adviser: T.P. Young (Plant Sciences)

Advising Center is located in 1224 Plant and Environmental Sciences 530-752-7738.