

# LANDSCAPE ARCHITECTURE (L A)

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**Any experimental courses offered by L A can be found at:**

registrar.iastate.edu/faculty-staff/courses/explisting/ (<http://www.registrar.iastate.edu/faculty-staff/courses/explisting/>)

**Courses primarily for undergraduates:**

**L A 171: City Play!**

(3-0) Cr. 3.

Exploration of play in cities. Introduction to two important concepts: how play has become a central theme in the economic development and sustainability of cities around the world; and, how the design of cities needs to make room for equitable access to play for everyone.

Meets U.S. Diversity Requirement

**L A 201: Studio: Landscape Interpretation and Representation**

(0-12) Cr. 6. F.

*Prereq: Enrollment in the professional program*

Reading and representing varied landscapes; development of aesthetic sensitivity to the geomorphology, vegetation, and cultural influences on these landscapes. Small-scale interventions and exploration of landscape phenomena and change. Emphasis on a variety of documentation and drawing techniques.

**L A 202: Studio: Site Design I**

(0-12) Cr. 6. S.

*Prereq: L A 201*

Fundamental issues of landscape planning and design at a site scale. Projects introduce a variety of (objective and subjective) site inquiry methods, space and place making, and sensitive integration of architecture and landscape for specific land uses. User needs, precedent study, programming, site engineering, planting design, and outdoor space design expressed through a variety of three-dimensional modeling, graphic, and written media.

**L A 211: Digital Design Methods for Landscape Architecture**

(Cross-listed with C R P). (3-0) Cr. 3. S.

Foundational knowledge and basic skills in 2D, 3D, and 4D computer applications used for design development and communication, with emphasis on 3D modeling and workflow interoperability.

**L A 221: Native Plants of the Savanna Ecotone**

(2-3) Cr. 3. F.

*Prereq: Enrollment in the professional program*

Observation and study of the wetland, prairie, and woodland vegetation native to the savanna ecotone. Emphasis on plant communities, their distribution, structure, habitat and aesthetics. Plant identification and use in landscape design. Precedent and case studies of vegetation preservation, restoration and use in built works.

**L A 222: Introduced Plants of the Midwest**

(2-3) Cr. 3. S.

*Prereq: L A 221*

Identification, observation, and study of plants introduced to cultivation in the Midwest region. Plant cultural requirements, including adaptations to climate changes, solar exposure, and soil conditions. Investigation of history of plant introduction and use in designed landscape, including consequent impacts of plant introduction such as plant invasion.

Introduction to planting design at the site scale, including matching plant cultural requirements to site conditions, functional uses of plants and expressive composition using plant form, texture and color.

**L A 241: Developing Identity as a Landscape Architect**

(1-0) Cr. 1. F.

*Prereq: Enrollment in the professional program*

Development of life skills for conflict resolution, effective interpersonal communication, and CPR/First Aid. Examination of personal values as they relate to the backgrounds, abilities, attitudes, and values of others; exploration of how these influence personal decision-making and group interaction. Reading, discussion, class activities, journal-keeping, writing. Offered on a satisfactory-fail basis only.

**L A 270: Foundations in Natural Resource Policy and History**

(Cross-listed with ENV S, NREM). (3-0) Cr. 3. F.

The development of natural resource conservation philosophy and policy from the Colonial Era to the present. North American wildlife, forestry, and environmental policy; national parks and other protected lands; federal and state agencies. Relationship to cultural contexts, including urban reform and American planning movement. Discussion of common pool resources, public and private lands.

**L A 272: Landscape Studies**

(3-0) Cr. 3. F.

*Prereq: Enrollment in the professional program*

Exploration of landscapes, from broad settlement patterns to individual sites. Investigation of relationships between vernacular and designed landscapes. Landscapes considered as modes of cultural production that shape and are shaped by social, political, and economic processes. Lectures, reading, field studies, and writing.

Meets U.S. Diversity Requirement

**L A 274: The Social and Behavioral Landscape**

(3-0) Cr. 3. S.

Exploration of social and behavioral factors pertinent to design of the domestic, civic, and commercial landscape. Focus on working familiarity with design principles as they relate to the behavior and activities of people across a broad demographic and cultural spectrum; application of these principles to design of outdoor environments. Lectures and discussions, including group exercises and field trips.

Meets U.S. Diversity Requirement

**L A 281: Investigating Landscape Form, Process, and Detail**

(1-6) Cr. 3. F.

*Prereq: Enrollment in professional program*

Exploration of the poetics and principles of landscape construction. Investigation and interpretation of landform and geomorphic processes such as the hydrologic cycle, erosion, and sedimentation. Close observation and representation of detail design, with an emphasis on material types, their connections, and weathering. Readings, field studies, and drawings in analog and digital media.

**L A 282: Landscape Dynamics**

(2-2) Cr. 3. S.

*Prereq: Sophomore standing*

Understand design implications presented by geotechnical and ecological processes in the landscape including ecology, vegetation, soils and water. Understand the influence of landforms, geology, plants, soils, and water on the creation of landscape designs. Course relates current issues including water quality impairment, erosion, and invasive species with design strategies such as stormwater management, soil quality management, and plant community restoration. Field trips.

**L A 301: Site Design II**

(0-12) Cr. 6. F.

*Prereq: L A 202*

Development of half-acre to hundred-acre landscape design and planning proposals, potentially in collaboration with students in other programs. Apply critical methodological frameworks to shape site systems while providing appropriate support for diverse user groups and creating culturally meaningful places. Assess and interpret a program of use, organize subjective and objective site inventory and analysis, develop functional and poetic design strategies for infrastructure and natural systems, and craft artistic and functionally explicit landscape architectural proposals. Development of appropriate technique and high level of craft in representations to support design thinking process and final scheme presentation.

**L A 302: Ecological Design**

(0-12) Cr. 6. S.

*Prereq: L A 282, L A 301, L A 381 and NREM 120*

Application of ecological theories and processes in design and planning at the hundred plus-acre scale specifically focusing on urban and urban fringe landscapes. Apply advanced landscape analysis of soil, water, and vegetation utilizing geographic information systems. Particular focus on stream and wetland restoration, mitigation, and regulations and developing design representations for public use.

**L A 309: Field Travel**

Cr. 1. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Enrollment in the professional program and permission of instructor*

Observation of and reflection on professional practice and landscapes in urban, rural, and wilderness areas. Offered on a satisfactory-fail basis only.

**L A 322: Fundamentals of Planting Design**

(2-3) Cr. 3.

*Prereq: L A 221*

The art and techniques of creating plant compositions in the landscape that respond to cultural and biophysical contexts. Investigation of soil properties and plant/soil relationships relevant to the built environment. Methods of site inventory and analysis, developing plant palettes and composing plant assemblages that address expressive and functional needs. Introduction to the techniques of preparing planting plans, including standards for plant selection, plant lists and plant specification.

**L A 341: Contemporary Landscape Architecture**

(1-0) Cr. 1. S.

*Prereq: L A 301*

Exploration of contemporary landscape architectural practice through individualized research into practicing firms. Preparation of paper and presentation outlining broad framework and specific parameters of a selected area of contemporary practice using specific projects as examples. Work may result in invitation of current practitioner(s) as a lecture series or event. Resume and portfolio preparation in advance of required off-campus semester (L A 444 A, B or C).

**L A 371: History of Modern Landscapes, 1750 to Present**

(3-0) Cr. 3. S.

Investigation of landscape design concepts and trends as observed over time, from approximately 1750 to the present, with emphasis on the United States and Europe. Examination of significant figures and outstanding works (sites, gardens, landscapes, monuments, subdivisions, city plans, etc.) of varied geographic regions. Analysis of the social, economic, political, and technical forces contributing to the development of landscape design styles, vocabulary, and literature. Lectures, readings, projects, research papers.

**L A 373: Gardens and Landscapes from Antiquity to 1750**

(3-0) Cr. 3. F.

Investigation of international landscape design concepts and trends as observed over time, from pre-history to the mid 18th century. Examination of significant figures and outstanding works (sites, gardens, landscapes, monuments, subdivisions, city plans, etc.) of varied geographic regions. Analysis of the social, economic, political, and technical forces contributing to the development of landscape design styles, vocabulary, and literature. Lectures, readings, projects, research papers.

Meets International Perspectives Requirement.

**L A 381: Shaping the Land**

(3-0) Cr. 3. F.

*Prereq: L A 282 and MATH 143 or MATH 145*

Design of landforms to achieve aesthetic, functional, and safety goals. Landform changes to accommodate human uses and activities. Impacts and implications of landform transformation on the surrounding environment. Surface and subsurface drainage design, storm water runoff best management practices, contour manipulation to incorporate slopes, swales, culverts, pads, retaining walls, walks, steps, terraces, buildings, and other structures in the landscape. Road layout and alignment, parking lot design, and earthwork volume estimates. Design communication using CAD, perspectives, cross-sections, contour maps, landform models, and narratives. Class exercises, case study precedents, and preliminary construction documents.

**L A 401: Community Design**

(0-12) Cr. 6. F.

*Prereq: L A 402*

Physical planning and design of places utilizing community-based methods. Projects address social and cultural dimensions of placemaking such as reuse of abandoned sites, in-fill development, and community visioning. Emphasis on development of user-client relationship skills and design research. Integrated seminar component.

**L A 401H: Community Design: Honors**

(0-12) Cr. 7. F.

*Prereq: L A 402*

Physical planning and design of places utilizing community-based methods. Projects address social and cultural dimensions of placemaking such as reuse of abandoned sites, in-fill development, and community visioning. Emphasis on development of user-client relationship skills and design research. Integrated seminar component.

**L A 402: Urban Design**

(0-12) Cr. 6. F.

*Prereq: L A 302*

Comprehensive planning and design for urban sites or for sites within urban contexts. Projects typically include planning for a variety of integrated land uses, and cover the full range of design scales from master planning to proposals for site details. Emphasis on written and verbal as well as graphic communications. Integrated seminar component.

**L A 402H: Urban Design: Honors**

(0-12) Cr. 7. F.

*Prereq: L A 302*

Comprehensive planning and design for urban sites or for sites within urban contexts. Projects typically include planning for a variety of integrated land uses, and cover the full range of design scales from master planning to proposals for site details. Emphasis on written and verbal as well as graphic communications. Integrated seminar component.

**L A 403H: Senior Thesis Preparation Tutorial**

Cr. 2. F.

*Prereq: L A 402, permission of thesis advisor, enrollment in Honors program*  
Preparation for senior thesis.

**L A 404: Advanced Landscape Architectural Design**

(0-12) Cr. 6. Repeatable, maximum of 2 times. S.

*Prereq: L A 401*

Advanced forum for the demonstration of sophistication in landscape architectural design. Experimentation and innovation are encouraged.

**L A 404H: Advanced Landscape Architectural Design: Honors**

(0-12) Cr. 6-7. Repeatable, maximum of 2 times. S.

*Prereq: L A 401*

Advanced forum for the demonstration of sophistication in landscape architectural design. Experimentation and innovation are encouraged.

**L A 405H: Senior Thesis**

(0-15) Cr. 6. S.

*Prereq: L A 401, L A 402, L A 403, enrollment in Honors program and permission of advisor, chair and thesis advisor.*

Individual advanced forum for the demonstration of sophistication in landscape architectural design. Experimentation and innovation are expected.

**L A 442: Professional Practice**

(Dual-listed with L A 542). (2-0) Cr. 2. S.

*Prereq: L A 481*

Studies of conventional and developing forms of public and private practice. Explore relationships between professional life and the culture of the professional design firm; investigate firm identities and structures; understand design projects, their delivery process, and contractual agreements. Lecture and class discussion.

**L A 444: Landscape Architecture Independent Educational Enrichment**

Cr. R. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 341 or permission of advisor and chair*

Independent educational enrichment through exploration of landscape architectural practice in a professional internship, international studies, or out-of-region national study experience.

**L A 444A: Landscape Architecture Independent Educational Enrichment: Professional Internship**

Cr. R. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 341 or permission of advisor and chair*

Independent educational enrichment through exploration of landscape architectural practice in a professional internship, international studies, or out-of-region national study experience.

**L A 444B: Landscape Architecture Independent Educational Enrichment: Study Abroad**

Cr. R. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 341 or permission of advisor and chair*

Independent educational enrichment through exploration of landscape architectural practice in a professional internship, international studies, or out-of-region national study experience.

**L A 444C: Landscape Architecture Independent Educational Enrichment: National Student Exchange**

Cr. R. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 341 or permission of advisor and chair*

Independent educational enrichment through exploration of landscape architectural practice in a professional internship, international studies, or out-of-region national study experience.

**L A 454: Fundamentals of Remote Sensing and Spatial Analysis**

(Dual-listed with L A 554). (Cross-listed with C R P). (3-0) Cr. 3. S.

*Prereq: C R P 351 or equivalent or permission of the instructor*

Introduction to image processing techniques needed for analysis of optical remote sensing imagery, including filtering, enhancement, and classification. Analysis of elevation surfaces, hydrology, distance, overlays and visual programming with Model Builder. Practical applications in a variety of topics to understand how to analyze imagery.

**L A 459: Digital Design Methods for Landscape Architecture**

(Dual-listed with L A 559). (3-0) Cr. 3. S.

Introduction to digital tools used by landscape architects for design communication, visualization, and design development, with emphasis on 3D modeling and workflow interoperability.

**L A 461: Introduction to GIS**

(Cross-listed with ENSCI, ENV S, IA LL). Cr. 4. SS.

Descriptive and predictive GIS modeling techniques, spatial statistics, and map algebra. Application of GIS modeling techniques to environmental planning and resource management.

**L A 478: Topical Studies in Landscape Architecture**

(Dual-listed with L A 578). Cr. 2-3. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections. Course contact hours can range from (2-0) to (3-0) depending on number of credits.

**L A 478A: Topical Studies in Landscape Architecture: Landscape Design**

(Dual-listed with L A 578A). Cr. 2-3. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478B: Topical Studies in Landscape Architecture: Planting Design**

(Dual-listed with L A 578B). Cr. 2-3. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478C: Topical Studies in Landscape Architecture: Construction**

(Dual-listed with L A 578C). Cr. 2-3. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478D: Topical Studies in Landscape Architecture: History/Theory/Criticism**

(Dual-listed with L A 578D). Cr. 2-3. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478E: Topical Studies in Landscape Architecture: Landscape Planning**

(Dual-listed with L A 578E). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478F: Topical Studies in Landscape Architecture: Urban Design**

(Dual-listed with L A 578F). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478G: Topical Studies in Landscape Architecture: Graphics**

(Dual-listed with L A 578G). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478H: Topical Studies in Landscape Architecture: Honors**

Cr. 2-3. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478I: Topical Studies in Landscape Architecture: Interdisciplinary Studies**

(Dual-listed with L A 578I). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478J: Topical Studies in Landscape Architecture: International Studies**

(Dual-listed with L A 578J). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 478K: Landscape Architecture: Computer Applications**

(Dual-listed with L A 578K). Cr. 2-3. Repeatable. F.S.SS.

*Prereq: Senior classification or graduate standing*

Offerings vary with each term; check with department for available sections. Course contact hours can range from (2-0) to (3-0) depending on number of credits.

**L A 478L: Topical Studies in Landscape Architecture: Ecological Design**

(Dual-listed with L A 578L). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior classification or graduate standing*

Offerings vary with each term; check with department for available sections.

**L A 478M: Topical Studies in Landscape Architecture: Landscape Architecture: Social/Behavioral**

(Dual-listed with L A 578M). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior classification or graduate standing*

Offerings vary with each term; check with department for available sections.

**L A 478N: Topical Studies in Landscape Architecture: Natural Resources**

(Dual-listed with L A 578N). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior classification or graduate standing*

Offerings vary with each term; check with department for available sections.

**L A 481: Landscape Construction**

(3-0) Cr. 3. F.

*Prereq: L A 381*

Development of construction details with an emphasis on the aesthetic and functional use of landscape materials. Explore characteristics, applications, systems, and uses of wood, paving, walls, masonry, concrete, and metals in the landscape. Preliminary preparation of construction documents and design documentation software.

**L A 482: Landscape Construction Documentation**

(3-0) Cr. 3. S.

*Prereq: L A 481*

Development of advanced construction documents, including documentation processes, cost estimation, sheet coordination, and specification writing. Emphasis on documentation software as a tool for design communication.

**L A 490: Independent Study**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490A: Independent Study: Landscape Design**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490B: Independent Study: Planting Design**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490C: Independent Study: Construction**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490D: Independent Study: History/Theory/Criticism**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490E: Independent Study: Landscape Planning**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490F: Independent Study: Urban Design**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490G: Independent Study: Graphics**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490H: Independent Study: Honors**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490I: Independent Study: Interdisciplinary Studies**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490J: Independent Study: International Studies**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490K: Independent Study: Computer Applications**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490L: Independent Study: Ecological Design**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490M: Independent Study: Social/Behavioral**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 490N: Independent Study: Natural Resources**

Cr. 1-6. Repeatable, maximum of 3 times. F.S.SS.

*Prereq: Written approval of instructor and department chair on required form*  
Investigation of a topic of special interest to the student.

**L A 491: Environmental Law and Planning**

(Dual-listed with L A 591). (Cross-listed with C R P, ENV S). (3-0) Cr. 3. S.

*Prereq: 6 credits in natural sciences*

Environmental law and policy as applied in planning at the local and state levels. Brownfields, environmental justice, water quality, air quality, wetland and floodplain management, and local government involvement in ecological protection through land use planning and other programs.

**Courses primarily for graduate students, open to qualified undergraduates:**

**L A 509: Field Travel**

Cr. 1. Repeatable, maximum of 2 times.

*Prereq: Enrollment in the professional program and permission of instructor*  
Observation of and reflection on professional and academic practice and landscapes. Field study and travel to conferences and educational events. Reading and final report. Offered on a satisfactory-fail basis only.

**L A 522: Advanced Plant Technology**

(2-2) Cr. 3. F.

*Prereq: Junior or graduate standing*

Introduction to the science that supports green technologies. Plant and soil design for performance in the built environment. Design studies and lab explorations will complement readings, lecture and project case study presentations by practitioners. Green streets, green roofs, bio-phyto-remediation and other technologies are introduced. Final project integrates scientific and technical knowledge in a holistic landscape design.



**L A 541: Design Inquiry**

(3-0) Cr. 3. S.

*Prereq: Graduate standing*

Examination of design inquiry and introduction to research methods relevant to design. Consideration of where knowledge comes from, and how different research methods help create knowledge in various contexts. Readings, discussions, and sketch problems. Preparation of a written research proposal.

**L A 542: Professional Practice**

(Dual-listed with L A 442). (2-0) Cr. 2. S.

*Prereq: L A 481*

Studies of conventional and developing forms of public and private practice. Explore relationships between professional life and the culture of the professional design firm; investigate firm identities and structures; understand design projects, their delivery process, and contractual agreements. Lecture and class discussion.

**L A 543: Colloquium I: Landscape Architecture Research**

(0-1) Cr. 1. S.

*Prereq: Graduate standing.*

Graduate forum on current research in landscape architecture. Weekly presentations of scholarly and professional work by department faculty. Readings, discussions, and development of student research focus. Offered on a satisfactory-fail basis only.

**L A 545: Colloquium II: Interdisciplinary Research**

Cr. 1. Repeatable. F.

*Prereq: LA 543 or graduate standing.*

Student-run graduate forum on current research in landscape architecture and related disciplines. Weekly presentations by invited faculty from the departments across the College of Design, University, and professional guests. Readings, discussions, and writing. Offered on a satisfactory-fail basis only.

**L A 554: Fundamentals of Remote Sensing and Spatial Analysis**

(Dual-listed with L A 454). (Cross-listed with C R P). (3-0) Cr. 3. S.

*Prereq: C R P 351 or equivalent or permission of the instructor*

Introduction to image processing techniques needed for analysis of optical remote sensing imagery, including filtering, enhancement, and classification. Analysis of elevation surfaces, hydrology, distance, overlays and visual programming with Model Builder. Practical applications in a variety of topics to understand how to analyze imagery.

**L A 557: Landscape Parametrics & Design Coding**

(3-0) Cr. 3. F.

*Prereq: Graduate standing or senior status, or instructor permission.*

Introduction to parametric landscape design through computer programming of the landscape palette. Terrain, vegetation, water, weather, and lighting effects are modeled and represented algorithmically in Rhino-Grasshopper. Computational thinking, logic, and interactivity are combined to address core design principles.

**L A 558: Web Mapping and Spatial Data Visualization**

(Cross-listed with C R P). (2-2) Cr. 3.

*Prereq: CRP 451/551. GEOL 452/552 or instructor permission.*

Use and development of online mapping tools and coding to support participatory GIS, Volunteered Geographic Information, information sharing, geodesign, and decision-making actions. Geoprocessing, spatial data science, and user interface design. Laboratory emphasis on practical applications and uses of Web GIS.

**L A 559: Digital Design Methods for Landscape Architecture**

(Dual-listed with L A 459). (3-0) Cr. 3. S.

Introduction to digital tools used by landscape architects for design communication, visualization, and design development, with emphasis on 3D modeling and workflow interoperability.

**L A 571: Landscape Architectural Theory**

(3-0) Cr. 3. F.

*Prereq: graduate classification or permission of instructor*

Examination of the development of landscape architectural ideas in their historical contexts and in relation to social and cultural practices. Emphasis on exposure to key modern and contemporary texts and projects in landscape architecture, architecture, art, and related fields. Readings, discussions, and writings.

**L A 578: Topical Studies in Landscape Architecture**

(Dual-listed with L A 478). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections. Course contact hours can range from (2-0) to (3-0) depending on number of credits.

**L A 578A: Topical Studies in Landscape Architecture: Landscape Design**

(Dual-listed with L A 478A). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578B: Topical Studies in Landscape Architecture: Planting Design**

(Dual-listed with L A 478B). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578C: Topical Studies in Landscape Architecture: Construction**

(Dual-listed with L A 478C). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578D: Topical Studies in Landscape Architecture: History/Theory/  
Criticism**

(Dual-listed with L A 478D). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578E: Topical Studies in Landscape Architecture: Landscape Planning**

(Dual-listed with L A 478E). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578F: Topical Studies in Landscape Architecture: Urban Design**

(Dual-listed with L A 478F). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578G: Topical Studies in Landscape Architecture: Graphics**

(Dual-listed with L A 478G). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578I: Topical Studies in Landscape Architecture: Interdisciplinary  
Studies**

(Dual-listed with L A 478I). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578J: Topical Studies in Landscape Architecture: International  
Studies**

(Dual-listed with L A 478J). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior or graduate classification*

Offerings vary with each term; check with department for available sections.

**L A 578K: Landscape Architecture: Computer Applications**

Cr. 2-3. Repeatable. F.S.SS.

*Prereq: Senior classification or graduate standing*

Offerings vary with each term; check with department for available sections. Course contact hours can range from (2-0) to (3-0) depending on number of credits.

**L A 578L: Topical Studies in Landscape Architecture: Ecological Design**

(Dual-listed with L A 478L). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior classification or graduate standing*

Offerings vary with each term; check with department for available sections.

**L A 578M: Topical Studies in Landscape Architecture: Landscape  
Architecture: Social/Behavioral**

(Dual-listed with L A 478M). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior classification or graduate standing*

Offerings vary with each term; check with department for available sections.

**L A 578N: Topical Studies in Landscape Architecture: Natural Resources**

(Dual-listed with L A 478N). Cr. 2-3. Repeatable, maximum of 3 times.

F.S.SS.

*Prereq: L A 202 or senior classification or graduate standing*

Offerings vary with each term; check with department for available sections.

**L A 580: Thesis, Creative Component Tutorial**

Cr. 1-4. Repeatable, maximum of 4 credits. F.S.SS.

*Prereq: Permission of major professor*

Hands-on participation in a creative or research activity in the student's area of specialization. Development of a detailed prospectus that defines the thesis or creative component.



**L A 583: Landscape TopoGraphics**

(3-0) Cr. 3. F.

*Prereq: LA 602*

Design of landforms to achieve aesthetic, functional, and safety goals. Impacts and implications of landform transformation on the surrounding environment. Design communication using CAD, perspectives, cross-sections, contour maps, landform models, and narratives. Class exercises, case study precedents, and preliminary construction documents.

**L A 587: Landscape Construction**

(1-4) Cr. 3. S.

*Prereq: L A 583*

Introduction to construction practices in landscape architecture. Emphasis on the aesthetic and functional components of built environments including materials, assemblies, and techniques. Introduction to the preparation of construction documents and design documentation software.

**L A 590: Special Topics**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Graduate standing.*

Investigation of a topic of special interest to the student.

**L A 590A: Special Topics: Landscape Design**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590B: Special Topics: Planting Design**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590C: Special Topics: Construction**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590D: Special Topics: History/Theory/Criticism**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590E: Special Topics: Landscape Planning**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590F: Special Topics: Urban Design**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590G: Special Topics: Graphics**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590I: Special Topics: Interdisciplinary Studies**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590J: Special Topics: International Studies**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590K: Special Topics: Computer Applications**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590L: Special Topics: Ecological Design**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590M: Special Topics: Social/Behavioral**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 590N: Special Topics: Natural Resources**

Cr. 1-6. Repeatable, maximum of 2 times. F.S.SS.

*Prereq: Approval of instructor and Director of Graduate Education on required form*

Investigation of a topic of special interest to the student.

**L A 591: Environmental Law and Planning**

(Dual-listed with L A 491). (Cross-listed with C R P). (3-0) Cr. 3. S.

*Prereq: 6 credits in natural sciences*

Environmental law and policy as applied in planning at the local and state levels. Brownfields, environmental justice, water quality, air quality, wetland and floodplain management, and local government involvement in ecological protection through land use planning and other programs.

**L A 594: Environmental Justice in Built Environments**

(3-0) Cr. 3. S.

*Prereq: Graduate standing or senior classification.*

Disproportionate environmental exposures threaten sustainable and resilient cities. Focus on cumulative effects of climate change, social exclusion, and physical isolation on vulnerable populations. Empirical research and visual surveys are synthesized into planning and design strategies for human well-being. Mapping in GIS and spatial analysis assess potential urban environmental burdens.

**L A 599: Creative Component**

Cr. 1-8. Repeatable, maximum of 8 credits. F.S.SS.

*Prereq: Permission of major professor*

Comprehensive study and original development of a project selected by the student and approved by the major professor. Completed project must be submitted to and approved by a graduate faculty committee as evidence of mastery of the principles of landscape architecture.

**Courses for graduate students:**

**L A 601: Studio I: Design Representation**

(4-0) Cr. 4. F.

*Prereq: Graduate standing*

Introduction to history, techniques, and conventions of landscape architecture representation. Production of design drawings that facilitate critical thinking, the testing of design ideas, and effective communication. Use of two- and three-dimensional media, both analog and digital.

**L A 602: Studio II: Land Form and Plant Scape**

(0-12) Cr. 6. S.

*Prereq: L A 601*

Landscape design integrating knowledge of land patterns, plant ecosystems, and human processes. Project involve landform and plants at varied scale of design. Emphasis on competencies in design based in natural process, human behavior, and representation.

**L A 603: Studio III: Performance Landscapes**

(0-12) Cr. 6. S.

*Prereq: L A 602*

Theory and methods of landscape design at a variety of scales to achieve desired cultural and biophysical impacts. Development and use of performance metrics drawn from design, humanities, and science. Construction of integrated rhetorical structures of representation and analysis and critical viewpoints to create rigorous design "arguments" and meaningful, just and vibrant environments.

**L A 604: Studio IV: City Matters**

(0-12) Cr. 6. S.

*Prereq: L A 603*

Exploration of sociopolitical, ecological, and visual-spatial conditions of the urban environment through design at multiple scales. Focus on urban projects that highlight the complexity of human, ecological, and emerging infrastructural systems. Development of innovative strategies for sustainable, healthy, and just cities. Special attention is paid to new technologies and building material in cities.

**L A 605: Studio V: Land Works/Land Digits**

(0-12) Cr. 6.

*Prereq: L A 604*

Landscape design focusing on broadening the representational palette for landscape architectural concepts applied to complex sites at multiple scales. Emphasis on ideation and technical competency through advanced conceptualization, performance metrics, and skills in design research, digital representation, and teamwork.

**L A 699: Thesis Research**

Cr. 1-8. Repeatable, maximum of 8 credits. F.S.SS.

*Prereq: Permission of major professor*

Advanced and original scholarship in a specialized area. Culminates in a thesis document submitted to and approved by a graduate faculty committee as evidence of mastery of research in landscape architecture.