LANDSCAPE ARCHITECTURE (LAND ARC)

LAND ARC 210 — INTRODUCTION TO LANDSCAPE ARCHITECTURE DESIGN
4 credits.

Introduction to the techniques of landscape design, planning, and management through studio exercises. Principles of graphic communication media, and development of practical graphic skills to enhance the professional student's ability to communicate with lay and professional audiences. Enroll Info: None
Requisites: None
Course Designation: Level - Elementary
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 211 — LANDSCAPE INVENTORY AND EVALUATION METHODS
4 credits.

Inventory and evaluation of physical, biological, visual, and cultural site resources to determine their potential for enhancement of human activities and their sensitivities to use-impact. Emphasis on information sources, data gathering methods and analysis techniques with projects to develop proficiency. Enroll Info: None
Requisites: None
Course Designation: Breadth - Natural Science
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 250 — SURVEY OF LANDSCAPE ARCHITECTURE DESIGN
3 credits.

Principles of landscape and environmental design; incorporates elements of landscape planning and management. Provides background to the ideas and personalities shaping landscape architecture in America. Enroll Info: None
Requisites: None
Course Designation: Breadth - Humanities
Level - Elementary
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC 260 — HISTORY OF LANDSCAPE ARCHITECTURE
3 credits.

A critical and historical analysis of our design of outdoor space. Enroll Info: None
Requisites: None
Course Designation: Breadth - Humanities
Level - Elementary
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 261 — PRINCIPLES OF LANDSCAPE ARCHITECTURE DESIGN AND GRAPHICS
4 credits.

Basic principles in the design of landscapes to aid the student in developing individual capacities and approaches to designing. Principles of graphic communication media and development of practical graphic skills. Enroll Info: None
Requisites: Declared in Landscape Architecture undergraduate program
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC/HORT 263 — LANDSCAPE PLANTS I
3 credits.

Field identification, landscape characteristics, uses, environmental requirements, adaptability of woody ornamental plants; their autumn and winter character. Enroll Info: An intro botany crse or cons inst
Requisites: Sophomore standing and (BOTANY/BIOLOGY 130, ZOOLOGY/BOTANY 152, or BOTANY 100)
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Fall 2019

LAND ARC/ANTHRO/ART HIST/DS/HISTORY 264 — DIMENSIONS OF MATERIAL CULTURE
4 credits.

This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; discussion of foundational readings in the field; visits to collections and sites on campus and around Madison; discussion of readings assigned by visiting presenters or the professors; and exams and short papers that engage material culture topics. Enroll Info: None
Requisites: None
Course Designation: Breadth - Humanities
Level - Elementary
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Fall 2019

LAND ARC 289 — HONORS INDEPENDENT STUDY
1-2 credits.

Enroll Info: Enrolled in the CALS Honors Prgm Sophomore or Junior standing, INTER-AG 288
Requisites: Consent of instructor
Course Designation: Honors - Honors Only Courses (H)
Repeatable for Credit: Yes, unlimited number of completions
LAND ARC 299 — INDEPENDENT STUDIES
1-3 credits.
Enroll Info: Open to Freshmen, Sophomore or Junior standing written consent of instructor
Requisites: Consent of instructor
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2017

LAND ARC/F&W ECOL/HORT/PL PATH 309 — DISEASES OF TREES AND SHRUBS
3 credits.
Fundamental disease concepts, pathogens and causal agents, diagnosis, and biologically rational principles and practices for management of diseases of trees and shrubs. Enroll Info: Includes field trips
Requisites: (ZOOLOGY/BIOLOGY/BOTANY 152, BOTANY/BIOLOGY 130, or BIOCORE 381) or graduate/professional standing
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Grad 50% - Counts toward 50% graduate coursework requirement Repeatable for Credit: No
Last Taught: Fall 2018

LAND ARC 321 — ENVIRONMENT AND BEHAVIOR STUDIO - DESIGNING HEALTH PROMOTING ENVIRONMENTS
4 credits.
This course is a design studio in with an emphasis on the application of design principles aimed at promoting people's health and wellbeing in the built environment. Enroll Info: None
Requisites: LAND ARC 261 and DS 221
Course Designation: Breadth - Social Science Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 353 — LANDSCAPE ARCHITECTURAL TECHNOLOGY I
3 credits.
Problems dealing with the comprehension and modification of the earth's surface including landform design, preparation of grading plans, earthwork calculations. Enroll Info: None
Requisites: Declared in Landscape Architecture BLA
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 354 — LANDSCAPE ARCHITECTURAL TECHNOLOGY II
3 credits.
Problems dealing with construction detailing, including roadways, drainage structures, construction materials, cost estimating, specifications and working drawings. Enroll Info: None
Requisites: Declared in Landscape Architecture undergraduate program
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC/BSE/DS 356 — SUSTAINABLE RESIDENTIAL CONSTRUCTION
3 credits.
Properties and use of building materials, framing systems, HVAC systems, code requirements, conservation of natural resources in building construction and operation. Enroll Info: None
Requisites: MATH 112, 114, or 171
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement Sustain - Sustainability Repeatable for Credit: No
Last Taught: Spring 2016

LAND ARC 360 — EARTH PARTNERSHIP RESTORATION EDUCATION: INDIGENOUS ARTS & SCIENCES
1 credit.
Participate in a one-week community-based, intergenerational institute focused on ecological restoration and water stewardship rooted in Indigenous knowledge while working with Native Nations in Wisconsin. An emphasis is on environmental science aligned with cultural values and indigenous science processes and address environmental, education and health issues through restoration and stewardship action. Learn culturally accurate and authentic resources about tribal sovereignty, history, and culture and contemporary issues relevant to each community. Through hands-on stewardship action, a greater sense of self and diversity of perspectives related to impacts of climate change and preserving biodiversity will be gained. Enroll Info: None
Requisites: Junior standing
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability Repeatable for Credit: Yes, for 3 number of completions
Last Taught: Summer 2020
LAND ARC 361 — WETLANDS ECOLOGY
3 credits.

Types, origins, settings, and structure of wetlands. Physical, biological, and cultural values, uses and assessments. Physical and biological characteristics and dynamics. Protection, management and restoration. Field trips, literature review, term paper, and personal observations required. Enroll Info: Upper class st; basic college-level biology or equiv (such as relevant physical sciences)

Requisites: None
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 363 — EARTH PARTNERSHIP: RESTORATION EDUCATION FOR EQUITY AND RESILIENCE
3 credits.

Ecological restoration education utilizes the power of place to work towards social justice and sustainability. Work with Native Nations and community partners to apply Earth Partnership's 10 Step process. This process includes historical, cultural, ecological, and social justice components. Learn about assets-based, culturally relevant approaches to working with community partners. Interact with guest speakers and partners to experience firsthand different perspectives on environment, cultural priorities, protocols for interaction, and opportunities for relationship building. Work on community-based stewardship projects and reflect upon your epistemological relationship to land and people as global citizens. Enroll Info: None

Requisites: Junior standing
Course Designation: Breadth - Either Humanities or Social Science Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: Yes, for 2 number of completions
Last Taught: Spring 2021

LAND ARC 366 — INTRODUCTION TO ARCHITECTURAL AND ENVIRONMENTAL DESIGN
3 credits.

Introduces beginning design students to the interdisciplinary processes used in solving three-dimensional design problems for both exterior and interior spaces. Allows students to understand the integration between architectural design, site design and interior design, and how these design realms create physical and sensory experiences in our everyday lives. Helps students develop fundamental verbal and graphic communication skills used in the professional design world. Questions explored in this course include: How do we perceive and interact with spaces where we live, work, and play? What makes great interior and exterior spaces? How do designers think to solve creative spatial design problems? Enroll Info: None

Requisites: Sophomore standing
Course Designation: Breadth - Humanities Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Summer 2020

LAND ARC 371 — INTRODUCTION TO ENVIRONMENTAL REMOTE SENSING
3 credits.

Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to study the environment. Includes physical processes of electromagnetic radiation, data types and sensing capabilities, methods for interpretation, analysis and mapping, and applications. Enroll Info: MATH 114 Sophomore standing

Requisites: None
Course Designation: Level - Intermediate L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Summer 2020

LAND ARC 372 — INTERMEDIATE ENVIRONMENTAL REMOTE SENSING
3 credits.

Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to remote sensing of the environment. Includes transforms, image correction, classification algorithms and change detection, with emphasis on applications for land use planning and natural resource management. Enroll Info: Envir St 301 or consent of instructor, sophomore standing

Requisites: None
Course Designation: Level - Intermediate L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Spring 2015
LAND ARC 375 — SPECIAL TOPICS
1-4 credits.

Enroll Info: None
Requisites: None
Course Designation: Sustain - Sustainability
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021

LAND ARC 397 — INTERNSHIP IN LANDSCAPE ARCHITECTURE
1 credit.
An experiential learning opportunity that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. The course allows students to gain valuable applied experience and make professional connections in the field of landscape architecture. Students will apply landscape architecture concepts, practice problem solving-skills, be exposed to multidisciplinary approaches, develop team-work and interpersonal skills, access and use information resources, reflect upon or address ethical and professional issues, and prepare written and oral reports. Enroll Info: None
Requisites: Declared in in Landscape Architecture BLA and sophomore, junior or senior standing only
Course Designation: Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Workplace - Workplace Experience Course
Repeatable for Credit: Yes, for 3 number of completions
Last Taught: Spring 2021

LAND ARC 399 — COORDINATIVE INTERNSHIP/COORDERATIVE EDUCATION
1-8 credits.
Enroll Info: So, Jr or Sr st and cons supervising inst, advisor, and program coordinator
Requisites: Consent of instructor
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S Workplace - Workplace Experience Course
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2017

LAND ARC 400 — STUDY ABROAD IN LANDSCAPE ARCHITECTURE
1-6 credits.
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Enroll Info: Current enrollment in a UW-Madison study abroad program
Requisites: None
Repeatable for Credit: Yes, unlimited number of completions

LAND ARC 460 — ADVANCED VISUAL COMMUNICATION IN LANDSCAPE ARCHITECTURE
3 credits.
Focuses on the symbolic and representational computer graphics that are essential elements of design communication in landscape architecture. We will also review the strengths and weaknesses of hand and digital media and the use of both when appropriate. Assignments consist of sketchbook, drawing exercises, and visual communication projects. These assignments will cover advanced hand sketching and graphics, computer graphic techniques, including digital photography, advanced digital color theory and rendering, digital image processing, CAD drafting, 2D/3D modeling, image compositing, media formats, and video. Enroll Info: None
Requisites: LAND ARC 261
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC/URB R PL 463 — EVOLUTION OF AMERICAN PLANNING
3 credits.
The nature and cultural significance of contemporary methods for the systematic formulation of public policies for community, metropolitan, and state development through comprehensive planning. Historic roots, recent trends and new directions in American planning concepts, institutions and professional specializations. Enroll Info: None
Requisites: Junior standing
Course Designation: Breadth - Social Science
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC/CHICLA 475 — LATINO URBANISM: DESIGN AND ENGAGEMENT IN THE AMERICAN CITY
3 credits.
Urban design in the 21st century American city explores a new understanding of urban placemaking and development. Explores the intersections of culture, place, and design to critically address how the socioeconomic dynamics that underlie demographic shifts in the U.S. are influencing urban change in the American landscape. Focuses on the evolution and ways by which Latinos shape the built environment, both in the public realm and in the home. Enroll Info: None
Requisites: Sophomore standing
Course Designation: Ethnic St - Counts toward Ethnic Studies requirement
Breadth - Social Science
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: No
LAND ARC/ENVIR ST/GEOG/URB R PL 532 — APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS IN PLANNING
3 credits.
Explores planning-related GIS data, applications, analytical tools, and implementation issues. Enroll Info: None
Requisites: GEOG/CIV ENGR/ENVIR ST 377
Course Designation: Breadth - Social Science
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC 550 — PROFESSIONAL PRACTICE IN LANDSCAPE ARCHITECTURE
3 credits.
Introduction to operational procedures used in professional offices ranging from private landscape architectural design firms to public agencies. Practical experience project organization and management including the preparation of project manuals, legal documents, and construction contracts. Enroll Info: None
Requisites: Senior standing and declared in Landscape Architecture undergraduate program
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC/CIV ENGR/ENVIR ST 556 — REMOTE SENSING DIGITAL IMAGE PROCESSING
3 credits.
Techniques of enhancement and quantification of remote sensing imagery. Emphasis on processing and analyzing data gathered by airborne and satellite sensors. Techniques to quantitatively analyze data from photography, electro-optical scanners, satellite systems, and radar and passive microwave systems. A 5-week practicum with applications to: agriculture and forestry, geology and soils, water quality, and urban and regional planning. Enroll Info: Civ Engr/Envir St/Forestry 303 or authorization
Requisites: None
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC 560 — PLANTS AND ECOLOGY IN DESIGN
4 credits.
Explores the process of plant selection and placement in the landscape. The desired landscape will be ecologically appropriate to the setting, sustainable, functional in response to goals, and aesthetically pleasing. Acquire an awareness and understanding of the physical characteristics of plant materials and a sensitivity to their needs based on past and present. Emphasis on the recognition of the philosophy of planting design as a dynamic and changing spatial art and science, the relationship between environment and plants, application of design composition principles to plant selection and placement, and functional and utilitarian uses of plants; i.e., the opportunities and constraints for plants in the designed landscape. Enroll Info: None
Requisites: Declared in Landscape Architecture (BLA) and LAND ARC/HORT 263
Course Designation: Breadth - Natural Science
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC 561 — HOUSING AND URBAN DESIGN
4 credits.
An application of landscape design principles and problem-solving methods to housing and urban issues with attention to physical site design, land-use controls, and the relationship between housing and associated land uses. The built environment is continuously changing through multiple land development and redevelopment decisions. Public policies on housing, transportation, mortgage financing, and taxation, in conjunction with changing demographics and lifestyle preferences, are just some of the factors that influence the evolving structure and function of the built environment. Landscape architects can play important roles through design, civic engagement, and policy advocacy in making our cities and suburbs healthier and more sustainable. Studio projects focus on the central city and/or suburbs. Enroll Info: None
Requisites: Declared in Landscape Architecture (BLA), LAND ARC 261 and 321
Course Designation: Breadth - Social Science
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 562 — OPEN SPACE PLANNING AND DESIGN
4 credits.
Form-giving design of open spaces in urban and rural settings and management for amenity and functional values. Integration of human activity requirements and experiences with physical and natural site features. Enroll Info: None
Requisites: (LAND ARC 261 and 321) or graduate/professional standing
Course Designation: Breadth - Social Science
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Spring 2021
**LAND ARC 563 — DESIGNING SUSTAINABLE AND RESILIENT REGIONS**
4 credits.

Exploration of broad scale design issues to develop synthesis and design skills. Uses spatial form and bioregional cultural, ecological and environmental concepts to solve land use and conservation problems. Regional design requires advanced techniques for inventory, analysis, and design to help in understanding complex trends, policy and design impacts, hazard mitigation, design intervention suitability, design guidelines, and systems level design. These techniques help us explore the relationships between regions and sites, especially regional implications of site design decisions and site design impacts on regional characteristics and systems. Enroll Info: None

**Requisites:** LAND ARC 354

**Course Designation:** Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability

**Repeatable for Credit:** No

**Last Taught:** Fall 2020

**LAND ARC/F&W ECOL/ZOOLOGY 565 — PRINCIPLES OF LANDSCAPE ECOLOGY**
2 credits.

Landscape ecology emphasizes the importance of spatial patterns at broad scales. Concepts and applications are emphasized, especially for seniors and graduate students in applied natural resource fields. The course is also a prerequisite for Zoology/Forest Ecology 665, Advanced Landscape Ecology. Lecture format with discussion. Enroll Info: Botany/Zoology/Forest 460, or Forest 550, a crosr in stats, cons inst

**Requisites:** None

**Course Designation:** Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Sustain - Sustainability

**Repeatable for Credit:** No

**Last Taught:** Spring 2019

**LAND ARC 610 — LANDSCAPE ARCHITECTURE SEMINAR**
3 credits.

Capstone project proposal development from a regional to site scale. Students make several site visits with clients to gain a better understanding of local conditions and the client’s expectations. The final proposal document is grounded in research and includes a literature review, precedent studies, programmatic development, and inventory and analysis mappings that address issues from ecology to public/private partnerships. Enroll Info: None

**Requisites:** Senior standing and declared in Landscape Architecture undergraduate program

**Course Designation:** Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2020

**LAND ARC 611 — SENIOR CAPSTONE IN LANDSCAPE ARCHITECTURE**
4 credits.

Problems in landscape design, planning and management for which students take the initiative in their definition and solution. Provides an opportunity for synthesis of the knowledge, skills, and approaches learned in previous coursework. Enroll Info: LAND ARC 610

**Requisites:** LAND ARC 610 and declared in Landscape Architecture BLA

**Course Designation:** Gen Ed - Communication Part B
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Sustain - Sustainability

**Repeatable for Credit:** No

**Last Taught:** Spring 2021

**LAND ARC 621 — DESIGNING HEALTHY COMMUNITIES SEMINAR**
3 credits.

Sustainable community planning and design principles aimed at promoting human health and wellbeing as it relates to the quality of the physical environment. Special topics include access to settings that promote physical activity, social interaction and mental restoration; walk- and bikeability; access healthy food, complete streets, place-making, and biophilic design, active living assessment tools, and architectural sustainability certification systems focusing on the health benefits of good community design. Enroll Info: None

**Requisites:** Graduate/professional standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement
Sustain - Sustainability

**Repeatable for Credit:** No

**Last Taught:** Spring 2021

**LAND ARC 630 — GEODESIGN FOUNDATIONS**
3 credits.

This online lecture, discussion and lab course is designed specifically for students enrolled in the Capstone Certificate in Geodesign. Geodesign is the integration of design and planning, the social and economic sciences, the physical and natural sciences, human values and public participation, using geographic information systems (GIS) with the goal of creating a better, more sustainable and resilient future. This course focuses on understanding the history, leaders, trends, and various frameworks of Geodesign. This introduction to Geodesign will cover a broad body of knowledge that includes: historical foundations of Geodesign; critically evaluate Geodesign frameworks; relationship between Geodesign and planning and design processes, including decision-making frameworks; roles and practices of geospatial technology for planning and design; interdisciplinary application of evidence based design using social and natural science research; communication of spatial decisions, data, information, and processes; spatially evaluate public policy and regulation; and values and ethical issues in Geodesign. Enroll Info: Students must be admitted into the Capstone Certificate in Geodesign Program

**Requisites:** None

**Course Designation:** Sustain - Sustainability

**Repeatable for Credit:** No
LAND ARC 631 — GEODESIGN METHODS
3 credits.

This course focuses on understanding and application of methods and technology used in the Geodesign framework using the following models: representation, process, evaluation, change, impact, and decision. Students write a methods focused, preliminary project proposal. Geodesign methods and technology are vast and continually evolving, but will be limited to industry standards: Esri ArcGIS Desktop, Esri CityEngine, Trimble SketchUp, and various open-source alternatives as needed (i.e. QGIS, Grass, etc.). Students will be exposed to and may use, at their own discretion in coordination the instructor, other open-source alternatives on individual assignments when software and methods choices are at the their discretion (see assignment statements for specific requirements). Enroll Info: Students must be admitted into the Capstone Certificate in Geodesign Program

Requisites: None
Course Designation: Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Fall 2019

LAND ARC 633 — GEOSPATIAL APPROACHES TO CONSERVATION AND ADAPTATION
2 credits.

Students will explore and use applications of GIS particularly related to landscape ecology, environmental analysis, and conservation design. Engaged students will: a. learn/practice how to solve spatial environmental questions; b. proficiently apply design thinking toward landscape conservation and adaptation solutions. Enroll Info: LAND ARC 630 and LAND ARC 631 and admission to the Capstone Certificate in Geodesign

Requisites: None
Course Designation: Sustain - Sustainability
Repeatable for Credit: No

LAND ARC 634 — GEODESIGN CAPSTONE PROJECT
3 credits.

This capstone course is the culmination of the yearlong Geodesign Certificate Program. It is designed for students to demonstrate the skills and knowledge that they have acquired in the four prerequisite courses by resolving a "real world" geodesign problem. Students will work with their advisors on projects of their own choosing and as agreed upon by their advisors and the program coordinator and director. Enroll Info: LAND ARC 630, LAND ARC 631, LAND ARC 633, and LAND ARC 671 and admission to the Capstone Certificate in Geodesign

Requisites: None
Course Designation: Sustain - Sustainability
Repeatable for Credit: No

LAND ARC/DS 639 — CULTURE AND BUILT ENVIRONMENT
3 credits.

The course explores cultural values embedded in buildings through understanding physical configurations, social organizations, practiced/symbolic/representational aspects of buildings. The course covers a wide range of cultures and the built environments they produce including examples from the Americas, the Middle East, as well as those of the many ethnic minorities in the U.S.

Enroll Info: None

Course Designation: Sustain - Sustainability
Repeatable for Credit: No

LAND ARC 651 — PLANT COMMUNITY RESTORATION AND MANAGEMENT WORKSHOP
4 credits.

Formulation of plant community restoration and management plans; including the preparation of planting plans and working drawings for implementation. Classroom and practical exposure to natural areas management tools, including prescription prairie fire. Enroll Info: Land Arc 262 or Grad st

Requisites: LAND ARC 211
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S Sustain - Sustainability
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2018

LAND ARC 668 — RESTORATION ECOLOGY
3 credits.

Restoration is an approach to the conservation of native species, plant communities, and ecosystems. It is an interdisciplinary global enterprise practiced by private and public sector professionals and dedicated volunteers of all ages. Covers both the theory and practice of restoration ecology and examine the current opportunities, challenges, and controversies that underlie the field. The goal may be to preserve nature, but restoration is a fundamentally human enterprise—it is accomplished for and by people. Therefore we cover information from ecology, sociology, and the humanities.

Enroll Info: None

Requisites: LAND ARC 560 or (LAND ARC 365 prior to Spring 2019)
Course Designation: Breadth - Biological Sci, Counts toward the Natural Sci req
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S Grad 50% - Counts toward 50% graduate coursework requirement Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Fall 2020
LAND ARC/BOTANY 670 — ADAPTIVE RESTORATION LAB
2 credits.

Field experience in restoration as an adaptive process involving field experimentation; baseline data collection on restoration sites; design of experiments to advance restoration science; quantitative evaluation of restoration outcomes. Analysis and interpretation of data; development of a team report. Enroll Info: a crse in ecology a crse in stats, or cons inst

Requisites: None
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2015

LAND ARC 671 — GEODESIGN FOR SUSTAINABILITY AND RESILIENCY
3 credits.

This course explores the Geodesign concepts and analysis methods can support sustainability and resiliency. A brief history and development of the sustainability and resiliency movements establishes context, motivation and priorities for Geodesign. Characteristics of public participation frame the role of geodesign to engage and empower the community to plan for sustainability and resiliency. Discovery of issues, spatial data and analyses follows a conceptual and geographical trend from local to global scales and urban to rural localities. These include population density, land cover change, urban growth/sprawl, transportation, walkable neighborhoods, water resources, green infrastructure, landscape prioritization, carbon footprint analysis, and climate change. Geodesign approaches include measurement of indicators/metrics, resource management, cost/benefit analyses, and proximity measurements. Experience with these methods and data resources takes place in weekly laboratory/homework exercises throughout the semester. Enroll Info: LAND ARC 630 and LAND ARC 631 and admission to the Capstone Certificate in Geodesign

Requisites: None
Course Designation: Sustain - Sustainability
Repeatable for Credit: No

LAND ARC 677 — CULTURAL RESOURCE PRESERVATION AND LANDSCAPE HISTORY
3 credits.

Provides an introduction to cultural landscape studies as a corollary to cultural conservation in public folklore, environmental planning, natural and cultural resource management, landscape architecture, and the history of landscape architecture. The course acquaints students with varied concepts of cultural landscape, key historical and cultural landscape research methodologies, and a range of preservation and conservation types involving cultural landscapes, traditional cultural properties, and intangible and tangible cultural heritage. Students observe, research, and write about cultural landscapes, gain an understanding of cultural, historical, and natural dynamics of the (built) environment, and become acquainted with aspects of cultural conservation and landscape preservation nationally and internationally. Enroll Info: None

Requisites: Junior standing
Course Designation: Breadth - Humanities
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2020

LAND ARC 681 — SENIOR HONORS THESIS
2-4 credits.

Enroll Info: Honors program candidacy
Requisites: Consent of instructor
Course Designation: Honors - Honors Only Courses (H)
Repeatable for Credit: No
Last Taught: Fall 2014

LAND ARC 682 — SENIOR HONORS THESIS
2-4 credits.

Continuation of 681. Enroll Info: Honors program candidacy
LAND ARC 681
Requisites: Consent of instructor
Course Designation: Honors - Honors Only Courses (H)
Repeatable for Credit: No
Last Taught: Spring 2019

LAND ARC 691 — SENIOR THESIS
4 credits.

Enroll Info: None
Requisites: Consent of instructor
Repeatable for Credit: No
Last Taught: Spring 2001

LAND ARC 692 — SENIOR THESIS
4 credits.

Enroll Info: None
Requisites: Consent of instructor
Repeatable for Credit: No
LAND ARC/ENVIR ST/SOIL SCI 695 — APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL RESOURCES
3 credits.

Course has four components: 1) Detailed review of GIS concepts; 2) Case studies; 3) GIS implementation methods; 4) Laboratory to provide "hands-on" GIS experience. Enroll Info: None
Requisites: LAND ARC 211 or ENVIR ST/CIV ENGR/GEOG 377 or graduate/professional standing
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Sustain - Sustainability
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 699 — SPECIAL PROBLEMS-LANDSCAPE ARCHITECTURE
1-5 credits.

Enroll Info: Sr st and cons inst
Requisites: Consent of instructor
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021

LAND ARC 710 — THEORIES OF LANDSCAPE CHANGE
2 credits.

Theories of landscape change in the arts and sciences. Contributions of the scientific method and humanistic frameworks to major issues in landscape architecture. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC 720 — CRITICAL INQUIRY INTO LANDSCAPE DESIGN EXPRESSION
2 credits.

Normative design theory as it relates to historical and contemporary aesthetic expression in landscape design. Review of critical theory and meaning associated with a broad landscape architecture typology. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2020

LAND ARC 740 — RESEARCH IN LANDSCAPE ARCHITECTURE
3 credits.

Overview of research: Logic and language of the process, substantive issues, criticism of research literature, developments of detailed proposals. Enroll Info: Grad st in land arch or cons inst
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2020

LAND ARC/ANTHRO/ART HIST/DS/HISTORY 764 — DIMENSIONS OF MATERIAL CULTURE
4 credits.

This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; discussion of foundational readings in the field; visits to collections and sites on campus and around Madison; discussion of readings assigned by visiting presenters or the professors; and exams and short papers that engage material culture topics. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2019

LAND ARC 866 — SEMINAR IN NATURAL PLANT COMMUNITY RESTORATION AND MANAGEMENT
1 credit.

Student presentations on topics related to plant community management and restoration. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2019

LAND ARC/URB R PL 920 — REGIONAL DESIGN WORKSHOP
2-3 credits.

Development and application of a systematic approach to analysis and design at macro- and micro-scales within a regional context. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2012

LAND ARC 940 — GRADUATE SEMINAR
1-2 credits.

Individual research, group discussion and workshop covering selected problems relating to the environment and landscape architecture. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021
LAND ARC 990 — RESEARCH
1-12 credits.
Enroll Info: None
Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2021

LAND ARC 999 — INDEPENDENT STUDIES
1-3 credits.
Opportunity to explore concepts or issues of particular interest to the student. Enroll Info: None
Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2021