

# BACHELOR OF SCIENCE IN LANDSCAPE ARCHITECTURE

UNIVERSITY OF KENTUCKY

## COURSE DESCRIPTIONS

Updated Jan 2020

### REQUIRED COURSES OFFERED BY DEPARTMENT OF LANDSCAPE ARCHITECTURE

#### **LA 105 Introduction to Landscape Architecture (3)**

A survey of landscape architecture examining how the profession responds to societal needs in providing services to various public and private clients. Students will become aware of the potential for landscape architecture to transform the environment in which humans live, work, and play. Contemporary landscape architectural issues, practitioners and work are presented. Lecture, three hours per week.

Typically Offered: Fall Semester

#### **LA 111 Living on the Right Side of the Brain (3)**

Students in this course will gain an understanding and awareness of creative strategies that may be used in future problem solving. These strategies will help encourage creative thinking that will lead to more innovative and novel solutions. Students will practice a metacognitive approach by reflecting on their own thinking in an effort to enhance self-regulation and ultimately realize creative potential. Fulfills UK Core Inquiry in Arts and Creativity.

#### **LA 121 Landscape Architecture Design Studio I (6)**

Introduction to the fundamental elements and principles of design. Emphasis is on the application of design thinking and creative process to a variety of design problems. Observation, communication, and critique are stressed as components of process. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: Student must be accepted in the Landscape Architecture Program and enrolled in LA 161 (or previous completion of equivalent graphics course).

Offered: Spring Semester

#### **LA 161 Graphics I (3)**

A study of landscape architecture graphics including freehand sketching, plan, section, and perspective drawing. Rendering techniques in both black and white and color will be explored with a variety of media including pencils and markers. Lecture, two hours; studio, two hours per week.

Prereq: Non-LA majors must have permission of the instructor.

Typically Offered: Spring Semester

#### **LA 162 Digital Representation I (3)**

This course provides students with a basic knowledge of computer-aided methodologies applied to site design and design articulation. It focuses on utilizing computer-aided drafting/design as a tool for producing the sequence of drawing commonly used in professional design offices. The interface of computer-aided drafting/design software with various other digital applications to produce representations of site information is also emphasized. Lecture, 2 hours; laboratory, 2 hours per week.

Prereq: LA 161.

Typically Offered: Fall Semester

#### **LA 205 History of Landscape Architecture (3)**

A study of landscape design through past civilizations and how these have influenced our present approach to dealing with our landscape.

Prereq: CIS/WRD 110 or consent of instructor.

Typically Offered: Spring Semester

#### **LA 222 Landscape Architecture Design Studio II (6)**

LA 222 continues the core emphasis on process and design vocabulary from LA 121. The course is focused on the connections

between landscape architectural design, place, and regional landscapes, along with the continued development of graphic, written, and oral communication skills. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: LA 121 with a minimum grade of "C" and enrollment in LA 162 (or previous completion of equivalent CAD course). This course is a Graduate Composition and Communication Requirement (GCCR) course in certain programs, and hence is not likely to be eligible for automatic transfer credit to UK.

Offered: Fall Semester

### **LA 223 Landscape Architecture Design Studio III (6)**

Design studio emphasizing design process applied to site programming, landscape analysis, and site planning. Use of actual sites to emphasize relationships between landscape analysis processes, landscape topology, and landscape ecology. Low impact site development practices are stressed. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: LA 222 with a minimum grade of "C", PLS 366 or concurrent enrollment in PLS 366, or consent of the instructor. This course is a Graduation Composition and Communication Requirement (GCCR) course in certain programs, and hence not likely to be eligible for automatic transfer credit to UK.

Offered: Spring Semester

### **LA 271 Design Implementation I (4)**

This course develops competency in solving problems relating to site grading, drainage systems, road alignment, and other aspects of site engineering and stormwater management. Field trips may be required. Lecture, two hours; studio, six hours per week.

Prereq: LA 162 or permission of the instructor.

Offered: Spring Semester

### **LA 324 Landscape Architecture Design Studio IV (6)**

Studio design course emphasizing site selection and programmatic analysis in landscape master planning for complex site programs. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: LA 223 with a minimum grade of "C", PLS 366, and concurrent enrollment in PLS 320.

Offered: Fall Semester

### **LA 372 Design Implementation II (4)**

A continuation of landscape architecture design implementation; construction materials, including wood, paving, and walls, along with their applications: preparation of working drawings and materials specifications. Field trips may be required. Lecture, two hours; studio, six hours per week.

Prereq: LA 271 with a minimum grade of "C".

Offered: Fall Semester

### **LA 373 Design Implementation III (6)**

Advanced instruction and practicum in the development of design implementation drawings. Students will produce a comprehensive set of schematic design and construction drawings that apply the principles and techniques commonly used in the landscape architecture profession. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: LA 372 with a minimum grade of "C", PLS 320, or permission of the instructor.

Offered: Spring Semester

### **LA 390 International Study (3)**

International study program led by faculty in Landscape Architecture. Program locations vary from year to year. Other international study experiences may be accepted as equivalent for graduation requirements with permission of the Department Chair. This course may be repeated once with additional credits applied as an elective.

### **LA 398 Professional Development I (1)**

This course focuses on formally documenting and communicating competency relative to the knowledge, skills, and abilities developed in the landscape architecture major. The course will help students prepare for professional work experience

opportunities as well as learn more about additional educational opportunities in graduate school. Private, government, and non-profit sectors are discussed. Field trips(s) may be required.

Prereq: LA 105 and LA 324.

Typically Offered: Spring Semester

### **LA 400 Professional Development II (1)**

This course utilizes the products and experiences from LA 398 to further develop the student for opportunities beyond this university. This course will further prepare students for landscape architecture professional practice. Topics will include licensure and certification, professional design performance rating systems, ethics, business structure(s), job offer evaluation and negotiation, career financial planning, and regulatory requirements. Field trip(s) may be required.

Prereq: LA 398.

Offered: Spring Semester

### **LA 425 Landscape Architecture Design Studio V (6)**

Studio design course with emphasis on urban design and development, and associated public spaces. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: LA 324 with a minimum grade of "C".

Offered: Fall Semester

### **LA 426 Landscape Architecture Design Studio VI (6)**

Application of landscape architecture design process to address issues at a variety of scales with emphases on form generation, community engagement, and communication. Field trips may be required. Lecture, three hours; studio, nine hours per week.

Prereq: LA 425 with a minimum grade of "C".

Offered: Spring Semester

### **LA 490 Capstone and Professional Practice Seminar (2)**

A capstone course in which students will formally document their competency relative to knowledge, skills, and abilities developed in the landscape architecture major. This course will help students prepare to become practicing landscape architects and/or pursue additional formal education. Seminar, three hours per week; field trip(s) may be required. Prereq: LA 425.

\*\*\*LA 490 has been replaced by LA 398 and LA 400.

## **REQUIRED COURSES OFFERED BY DEPARTMENT OF PLANT SCIENCES**

### **PLS 220 Introduction to Plant Identification (3)**

An Introduction to the techniques used for plant identification based on over one hundred plants encountered in everyday life. Lecture, one hour; laboratory, four hours per week.

Typically Offered: Fall Semester

### **PLS 320 Woody Horticultural Plants (4)**

A detailed study of evergreen and deciduous trees, shrubs, vines, and ground covers occurring in the landscape; their systematic identification, hardiness, form, growth habit, size, culture, adaptation to environmental conditions, uses, and outstanding horticultural characteristics. Lecture, three hours; laboratory, three hours.

Prereq: PLS 220.

Typically Offered: Fall Semester

### **PLS 366 Fundamentals of Soil Science (4)**

Study of the physical, chemical and biological properties of soils and how these properties relate to plant nutrient availability and plant growth, land-use planning and management issues, and soil and water quality issues. Lecture, three hours; laboratory, three hours.

Prereq: CHE 105.

Typically Offered: Fall and Spring Semesters

## **REQUIRED COURSES THAT ALSO FULFILL UK CORE**

**LA 111 Living on the Right Side of the Brain (3)** See page one.

### **STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning (3)**

The goal of this course is to help students develop or refine their statistical literacy skills. Both the informal activity of human inference arising from statistical constructs, as well as the more formal perspectives on statistical inference found in confidence intervals and hypothesis tests are studied. Throughout, the emphasis is on understanding what distinguishes good and bad inferential reasoning in the practical world around us.

Fulfills UK Core Requirement for Statistical Inferential Reasoning

## **TOPICAL STUDIES COURSES OFFERED BY DEPARTMENT OF LANDSCAPE ARCHITECTURE**

11 HOURS REQUIRED

### **LA 262 Graphics II (3)**

Study and application of graphic communication methods with emphasis on integration of analog and digital multiple media and technologies. Lecture, two hours; laboratory, two hours per week.

Prereq: LA 162.

Offered: Spring Semester

### **LA 305 Design Theories in Landscape Architecture (3)**

This course will address a variety of viewpoints in design thinking as related to landscape architecture. Theoretical and philosophical foundations for environmental interventions will be explored and the process of design criticism as a form of inquiry will be emphasized.

Prereq: LA 205 or permission of instructor.

### **LA 307 Cultural Landscape Preservation (3)**

An introduction to cultural landscape preservation activities as design strategies. Exploration of regional landscape preservation case studies and applications of preservation methods to landscape preservation issues with an emphasis on research and process. Lecture, two hours; studio, two hours per week.

### **LA 308 Regional Land Use Planning Systems (3)**

An introduction to regional land use planning and its relationship to environmental, social, and economic systems. Students will develop an understanding of how land use decisions have impacted the development of the United States and how they are used to determine future development directions.

### **LA 345 Design with Plants (3)**

The application of design principles to the functional and aesthetic use of plant materials in the landscape. Lecture, two hours; studio, two hours per week.

Prereq: LA 161 and PLS 220, or permission of the instructor.

Typically Offered: Fall Semester

### **LA 355 Introductory Geospatial Applications for Land Analysis (3)**

An introduction to the concepts and methods of compilation, management, analysis, and display of spatially-referenced and tabular data utilizing vector and raster data models. Lecture will be complemented with computer based laboratory exercises. Lecture, two hours; laboratory, four hours per week.

Prereq: Third year or above LA major, junior/senior NRES major, or permission of instructor. (Same as NRE 355.)

Typically Offered: Fall and Spring Semester

**LA 395 Independent Study in Landscape Architecture (1-6)**

Topical Studies in landscape architecture allowing for individual research or design experience coordinated with academic pursuits and faculty mentorship and oversight. May be repeated with additional credits applied as an elective.

Prereq: Completed Independent Study Contract and permission of faculty.

**LA 397 Special Topics in Landscape Architecture (subtitle required) (1-6)**

Topical seminars on current issues of significance to landscape architecture. May be repeated to a maximum of six credits under different subtitles.

**LA 399 Internship in Landscape Architecture (2)**

This is a self-directed course providing academic credit for a pre-approved internship relating to the practice of landscape architecture. An internship involves working a minimum of 320 hours (e.g. eight weeks at 40 hrs./week) in a private or public landscape architecture office or in another professional experience associated with landscape architecture. Other experiences could include conservation work, research projects, or community engagement work. While engaged in the internship it is also required that a Practice Portfolio and a journal of professional engagement be kept along with a presentation/exhibit be produced at a minimum. Individualized learning contracts must be completed before the experience starts.

Prereq: LA 223 and completed UK Internship Program Learning Contract prior to starting the internship.

**LA 457 Contemporary Regional Land Use Planning Applications (3)**

This course builds on the systems learned in LA 308 and applies them, through GIS technology, to real world situations. In this course we will deal with rural development, decision making, and comprehensive land use within the context of the physical environment. Lecture, two hours; studio, three hours per week.

Prereq: LA 308 or LA 355, or permission of instructor.

Typically Offered: Fall Semester

**LA 462 Digital Representation II (3)**

This course focuses on the representation of essential elements of the landscape (structures, landform, water, vegetation, and atmosphere) in three dimensions utilizing a variety of software packages. Students learn about 3D modeling tools that will prepare them in the course to experiment with a variety of visualization methods. Students will test the appropriateness of visualization methods in search of a balance between realistic representations and software limitations. Lecture, 2 hours; studio, 2 hours.

Prereq: LA 262 or consent of instructor.

**LA 531 Water in Urbanizing Landscapes (3)**

This course is an introductory overview to water processes and water management in a watershed. An emphasis will be placed on hydrological landscape processes, best management practices and classifications of streams, as well as storm water and water management in urban and suburban settings. Data collection, analysis, and fieldwork will be a required portion of the class during the lab section. Lecture, 2 hours; laboratory, 2 hours per week.

Prereq: PLS 366 or consent of instructor.

Typically Offered: Spring Semester

**LA 556 Contemporary Geospatial Applications for Land Analysis (3)**

This course focuses on contemporary concepts of land analysis, model development, and ancillary functions in geospatial applications. We attempt to apply concepts from the literature in this course through geospatial technologies to real world situations through individual projects that embraces place. In this course, we will address primarily landscape scale analyses such as watersheds and hydrologic characteristics, viewsheds, least cost path analysis, and enhanced land evaluation and site assessment approaches that have specific relevance to you.

Prereq: LA 355/NRE 355 or permission of instructor. (Same as NRE 556.)

Typically Offered: Fall Semester

**LA 597 Special Topics in Landscape Architecture (subtitle required) (1-6)**

Topical seminars at an advanced level on current issues of significance to landscape architecture majors and graduate students. May be repeated to a maximum of six credits under different subtitles.

Prereq: see specific prerequisites listed for each Special Topics subtitle course.

## **SPECIALTY SUPPORT**

ONE FROM THE FOLLOWING OR ONE APPROVED BY DUS; ONE ADDITIONAL 300-500 SERIES CHOSEN WITH ADVISOR

### **FOR 340 Forest Ecology (4)**

The study of the forest as a biological community, covering ecosystem concepts such as energy flow, forest nutrition, nutrient cycling, and decomposition. Interrelationships between trees and other organisms comprising the community is also examined through concepts of disturbance, succession, population dynamics, biological and ecosystem diversity, ecosystem management, and ecosystem services.

Prereq: BIO 103 or BIO 150

Typically Offered: Fall Semester

### **FOR 435 Conservation Biology (3)**

Review the ethical foundations of conservation biology, discuss the scientific evidence that illustrates recent rapid loss of biological diversity at multiple spatial and temporal scales, identify and elaborate on the causative factors of biodiversity loss, discuss various strategies for conserving biodiversity, and discuss ways that various human cultures and associated resource use influence non-human life and the human societies that depend on them. Conservation biology is multidisciplinary in scope and discussion topics include wildlife management, restoration ecology, economics, ethics, geology, evolution, philosophy, phylogeny, taxonomy, genetics, behavioral ecology, population ecology, disease, sociology, sustainable living, and human dimensions. Conservation topics will be global in scope, with well-studied case examples used to support class activities.

Prereq: Introductory biology course or consent of the instructor.

Typically Offered: Spring Semester

### **FOR 540 Urban Ecology (3)**

Discussion-based course focused on describing urban ecosystems, the processes determining patterns of abundance and distribution of organisms in urban ecosystems, the interactions among organisms in the urban environment, the interactions between humans (and societies) and nature in urban environments, and some aspects of urban planning and urban forestry as it relates to ecology and the environment.

Prereq: Upper level course in biology, ecology, environmental policy or consent of the instructor.

### **GEO 530 Biogeography and Conservation (3)**

An introduction to the geographic patterning of biological diversity, exploring its origins, dynamics, and present trends. Examines the interplay among physical conditions, ecological interactions, evolutionary processes, and the historical movements of organisms and land masses as they have combined to affect the distribution of species, with particular attention to the application of biogeographic knowledge to current problems of species loss and conservation.

Prereq: Two semesters of introductory biology or physical geography, or consent of the instructor. (Same as BIO 530.)

### **FOR/GEO 570 Landscape Ecology for Natural Resources (3)**

Principles of landscape ecology and their applications to contemporary ecological issues. Students will learn and apply the tool of geographic information systems (GIS) and spatial analysis to problems in natural resource ecology, management, and conservation. Course covers the following topics: principles of landscape ecology (e.g., patch, mosaic, and scale), quantification of landscape patterns, formation and dynamics of landscape patterns, role of disturbance, landscape models and their applications.

Prereq: any upper level course in GIS or consent of instructor.

Typically Offered: Fall Semester

### **SOC 360 Environmental Sociology (3)**

A sociological study of the inter-relationship between human societies and the natural environment. Topics may include population growth; food systems; energy; climate change; risk perception; disasters; sustainability; social movements; and environmental justice.

Prereq: SOC 101 or CLD 102. (Same as CLD 360.)

Typically Offered: Fall and Spring Semesters