

# SENATE COMMITTEE ON CURRICULAR AFFAIRS COURSE PROPOSAL FORM

Principal Faculty Member Proposing Course: Brian Orland, Professor and Head

College: **Arts & Architecture**

Department or Instructional Area: **Landscape Architecture**

Type of proposal:  **Add**  Change  Drop

Type of review requested:  **Full**  Expedited (See [Guide to Curricular Procedure](#) for definitions of a full or expedited review.)

Proposed Course Designation: **LARCH 231**

Proposed Course Title: **Introduction to Design Implementation**

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Complete for special categories of UNDERGRADUATE (001-499) course proposals (check, if appropriate):

## General Education

- Writing/Speaking (GWS)
- Quantification (GQ)
- Health and Physical Activity (GHA)
- Natural Sciences (GN)
- Arts (GA)
- Humanities (GH)
- Social and Behavioral Sciences (GS)

Bachelor of Arts Course: Arts  Humanities  Soc/Behavioral Sci.  Other Culture   
Honors (H) or Honors/Writing (M) or Honors/IIC (U) or Honors/1st-Year Seminar (T)   
Intercultural and International Competence Permanent (GI)  or One-semester (GI)   
Writing-Intensive (W) Permanent  or One-semester (W)

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SUBMITTED BY \_\_\_\_\_ Date \_\_\_\_\_  
Head of Department (or person in charge of instructional area)

REVIEWED BY \_\_\_\_\_ Date \_\_\_\_\_  
College Representative (Senate Committee on Curricular Affairs or Graduate Council Subcommittee on New and Revised Programs and Courses)

APPROVED BY \_\_\_\_\_ Date \_\_\_\_\_  
Dean of the College (or appropriate administrative officer)

After securing signatures, submit the following to the Curriculum Coordinator, University Faculty Senate, 101 Kern Graduate Building: (1) FULL REVIEW UNDERGRADUATE proposals, 1 copy of this form and 25 copies of supporting documentation; (2) FULL REVIEW GRADUATE proposals, 1 copy of this form and 15 copies of supporting documentation; (3) EXPEDITED REVIEW PROPOSALS, 1 copy of this form and 4 copies of supporting documentation.

## Supporting Documentation Required For **New** Courses

A. Heading as it would appear in the appropriate University <i>Bulletin</i>	
<b>1. Abbreviation</b>	<b>LARCH</b>
<b>2. Number</b>	<b>231</b>
<b>3. Title</b>	<b>Introduction to Design Implementation</b>
<b>4. Abbreviated Title</b> (18 bytes or less)	<b>INTRO TO DES IMPL</b>
<b>5. Credits</b>	<b>2</b>
<b>6. Description</b> (20 words or less)	Introduction of basic principles and tools supporting landform data, site systems, grading, visualization representation and site circulation.
<b>7. Prerequisite(s)</b>	<b>LARCH 251 (Concurrent)</b>

B. Course Outline	
<b>1. Course Outline (a brief outline of course content):</b>	<p>Week 1: Introduction to Digital Land Data Acquisition Methods</p> <p>Week 2: Introduction to Analysis of Site-specific Spatial Data</p> <p>Week 3: Site Systems – Interactions of Soil, Water, and Vegetation Ecology</p> <p>Week 4: Introduction to Common Environmental Regulatory Issues</p> <p>Weeks 5 and 6: Basic Landform Modeling and Visualization</p> <p>Weeks 7 and 8: Introduction to Basic Grading Methods and Slope Formulas</p> <p>Week 9: Basic Grading Standards and Calculations</p> <p>Weeks 10 and 11: Grading Process for Swales, Terraces, and Simple Structures</p> <p>Week 12: Basic Grading for Multiple Site Elements</p> <p>Week 13: Introduction to Vehicular/ Pedestrian Circulation Systems</p> <p>Week 14: Basic Concepts of Universal Accessible Design</p> <p>Week 15: Vehicular Circulation Design Methods and Standards</p>
<b>2. Major Topics (a listing of major topics to be covered with an approximate length of time allotted for their discussion):</b>	<p>Digital Land Data Acquisition and Application Methods: 3 weeks</p> <p>Basic Grading Process and Standards: 7 weeks</p> <p>Site Systems: 2 weeks</p> <p>Vehicular/ Pedestrian circulation systems: 3 weeks</p> <p>Appropriate Technologies: applied throughout</p>

**3. Course Description (400 words maximum):**

Introduction to basic concepts in landform manipulation, interrelationship of soil, water, and vegetation systems, and site circulation systems. Technical systems for land measurement and surveying, data management, and the use of graphic information systems for 2- and 3-dimensional representation and visualization.

**4. Faculty Responsible for Course Development:**

Stuart Echols, Timothy Murtha

**C. Justification Statement:**

**1. Instructional, Educational, and Course Objectives (this section should define what the student is expected to learn and what skills the student will develop):**

Collection, combination and analysis of site-specific spatial digital data from web based sources.

Creation and manipulation of site-specific spatial data and landform descriptions using different GIS and 3-D site visual representation programs.

Understanding of the basic ecological relationships amongst site systems of soil, water, and vegetation, and the value of system protection and resource conservation.

Understanding of conflicting environmental ethics and stewardship issues.

Developing a basic landform concept and representing that concept through the use of diagramming symbols and contours.

Development of a basic understanding of vehicular and pedestrian circulation configuration, geometry, and standards.

Development of a basic understanding of current regulatory and legal responsibilities, including environmental and universal access issues.

Developing competency that illustrates basic understanding and application of standards and methods required to complete appropriate technical drawings.

**2. Evaluation Methods (Include a statement that explains how the achievement of the educational objectives identified above will be assessed. The procedures for determining students' grades should be specifically identified):**

Student evaluation will be completed by a combination of individual exercises, projects, and quizzes. Student work will be evaluated for functional knowledge of landform design through specific exercises and projects. Student conceptual knowledge of terms and formulae will be completed through short response essays and quizzes. 75-80% of students' grades will be calculated based on their individual scores for exercises and projects. 20-25% of grades will be based on group projects and class participation.

**3. Relationship/linkage of Course to Other Courses (this statement should relate the course to existing or proposed new courses. It should provide a rationale for the level of instruction, for any prerequisites that may be specified, or for the course's role as a prerequisite for other courses):**

This course provides the foundation in landform and grading necessary to continue in the design implementation sequence. Students will use their knowledge of digital spatial data, site systems, landform and site circulation systems for specific projects in LARCH 232, 331, and 332.

**4. Relationship of Course to Major, Option, Minor, or General Education (This statement should explain how the course will contribute to the major, option, or minor and indicate how it may function as a service course for other departments):**

This course is a functional skill course, designed to give students the basic skills and process for landform design. The skills developed in this class will be used throughout their education and career in Landscape Architecture and more specifically in most, if not all, of their subsequent design studios.

**5. Consultation with Appropriate Departments and Academic Support Units**

The course proposal for LARCH 231 was circulated to all faculty in the College of Arts and Architecture and all Associate Deans of colleges at University Park and the chief academic officers, or their representatives, at all other campuses.

**6. If the course is to be offered by several colleges, a joint proposal should be submitted.**

N/A

**7. A description of any special facilities (e.g. labs or equipment) required to teach the course effectively should be included in the proposal.**

No special facilities required

**8. Technology Needs**

No special technology needs beyond those already available in the department.

**9. Frequency of Offering and Enrollment (Indicate how many students are expected to enroll and how often the course will be taught):**

Course will be taught each fall semester, enrollment will be in the range 40-50 second-year students.

D. Effective Date (the standard effective date for new courses is the first semester following approval on the Senate Curriculum Report)

Fall 2006