

***INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS  
FOR LANDSCAPE ARCHITECTURE***

***LA 415/ 515***

Department of Landscape Architecture  
University of Oregon

**Winter 2019  
4 Credits**

**T/Th 2:00 p.m. – 3:50 p.m.  
442 McKenzie Hall (SSIL computer lab)**

*Registration for non-Landscape Architecture majors  
requires instructor approval.*

***Instructor:*** Chris Enright, cenright@uoregon.edu  
Office hours TBA

***GE:*** Brianna Heese



**Course Description**

In this course students are introduced to the use of GIS for the representation, planning and design of landscapes. The course provides a foundation in the use of vector and raster tools in ESRI's ArcMap software and an introduction to ArcScene's 3D capabilities from the perspective of the discipline of Landscape Architecture.

**Course Format**

The general format of the class will be instruction and demonstration of the software and discussions about the use of the software during the first hour and, individual or small group work sessions during the second hour. Discussions during the first hour include open class discussions about assigned readings as well as topics that arise as students are learning to use the software. The in-class work sessions allow students to spend time on assignments with opportunities for individual guidance from the Instructor and GE.

**Course Objectives**

*Students are expected to gain the following skills during the quarter:*

Facility with ArcMap's graphic tools for creating basic landscape representation maps

A basic understanding of working with vector and raster file formats in GIS

The use and application of fundamental vector and raster analysis tools in GIS

The use of other software programs, specifically Excel and Illustrator, as part of workflow using GIS

The ability to generate 3D landscape representations using GIS

An understanding of the appropriate use of GIS in landscape analysis and design

### **Requirements/ Grading**

This class can be taken for a grade or Pass/ No Pass. The majority of the work is individual but the class includes short term group assignments. Active class participation, class assignments, quizzes, formal and informal student presentations and the final project will provide the framework for student evaluation. *All assignments must be satisfactorily completed to receive a passing grade in the class.*

Grades will be based on successful completion of the following:

- 25% Attendance, class participation and participation in reading discussions  
For graduate students this includes a brief writing assignment on two additional readings.  
If needed, quizzes and reading summaries may be included in this portion of the grade.
- 50% Assignments
- 25% Final project (individual)

### **Location**

The course meets in room 442 McKenzie Hall except for the final class on March 7th (that location TBA). The first class on Tuesday, January 8th will start at 2:00 in room 231 Lawrence Hall.

The class divides broadly into 4 parts:

- 1st part            Introduction to GIS: Lectures and presentations introducing ArcGIS software and its cartographic uses
- 2nd part           Introduction to Vector Query and Analysis Tools
- 3rd part           Introduction to Raster Tools and Analysis and 3D Representation
- 4th part           Final project: In the final project, students will use skills acquired during the quarter to complete and present a suitability analysis. Students are expected to use class time to work toward completion of this project.

***Plan to spend time on the Final Project - February 21st through March 7th***

*Anytime you have a question in class, please ask.*

The University of Oregon is working to create inclusive learning environments. If there are aspects of the instruction or design of this course that present barriers to your participation, please notify me as soon as possible. You are also welcome to contact the Accessible Education Center (<https://aec.uoregon.edu>) in Oregon Hall at 346-1155 or [uoac@uoregon.edu](mailto:uoac@uoregon.edu).