INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS FOR LANDSCAPE ARCHITECTURE

LA 415/ 515

Department of Landscape Architecture
University of Oregon

Winter 2020
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: Erica Andrus

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

Class sessions meet in room 442 McKenzie Hall except for the final class on March 5th (that location TBA). The first class on Tuesday, January 7th will start at 2:00 in Lawrence Hall (exact location to be sent prior to Week 1) and then move to McKenzie 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 20th through March 5th

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 uoaec@uoregon.edu.