

Introduction to Geographic Information Systems for Landscape Architecture



<https://learn.arcgis.com/cdn/card-catalog/uploads/cards/Projects and Status Types 500x375.png>

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LA 415/515 Introduction to Geographic Information Systems for Landscape Architecture: Winter 2023 - online course (4 units). Office Hours: TBA

This course will introduce students to the concepts, theory, and the practical methods of using Geographic Information Systems (GIS) to support landscape architecture projects. Students will learn how to integrate, visualize, explore, analyze, and share spatial dataset of our landscape mainly using ESRI's ArcGIS pro. This course is intended for landscape architecture, architecture, and environmental design students, but it is also opened to the students from other disciplines who want to learn the use of GIS for their academic or professional work.

Course Objectives

By the end of the course, students will be able to:

- Understand fundamental concepts that underline the use of a GIS
- Acquire, visualize, and analyze spatial data sets
- Create 2D/3D landscape representations by using GIS
- Integrate spatial data and GIS tools into landscape design workflows
- Be familiar with spatial thinking and data-driven spatial problems solving in landscape and environmental planning

Textbook

- Getting to Know ArcGIS Pro 2.6, Third Edition by Michael Law, Amy Collins (2020)

Software

- ESRI's ArcGIS Pro 2.x (2.6 or higher is recommended)
- Adobe Illustrator
- Microsoft Excel (or Google Sheets, Numbers)
- Rhino 7

Course Mechanics

This course is online (via the Canvas system) and conducted asynchronously (i.e. students can access class materials and conduct lab exercises anytime with their own schedule). However, the class activities and assignments (video lectures, readings, quizzes, and lab exercises) will be released on a weekly basis (with weekly due dates), so that course workloads are evenly distributed throughout the term.

In addition to online assistance, the instructor will be available during office hours to work one-on-one with students wishing in-person assistance.