

UP 6830 & GPH 4600

Advanced GIS

Fall Term 2018
223 State Hall
Urban Studies & Planning
Wayne State University

Instructor:

Daryl Laflamme
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Introduction:

Advanced Geographic Information Systems is a laboratory-intensive course designed to prepare students with practical GIS experience and advance their knowledge with the technology. Most class meetings will consist of hands-on demonstrations using Esri's ArcGIS Pro application to learn advance GIS tools. Students will work on a project based on a topic of interest. The project's aim, data, method and results will be open to the student. Through the help of the instructor, students will define, create and complete a project that is both manageable and realistic for the term. The instructor will guide students along in helping them complete all phases of their project.

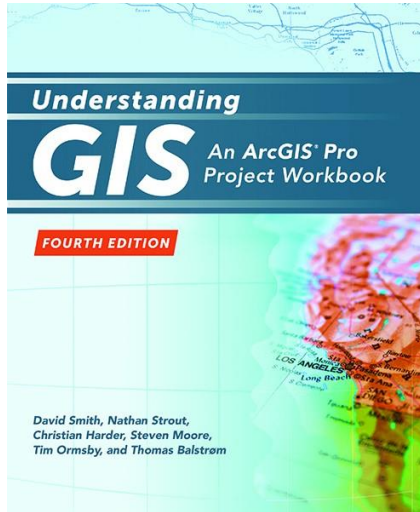
The course provides a good opportunity to learn and apply GIS in solving practical geographic problems in the student's field of study. Class meetings will consist of instructor led demonstrations and working on a GIS project.

Learning Outcomes:

The course will address the process of constructing a GIS project. It will examine the methodologies available to plan, execute and manage a project, and the tasks involved to complete it. There are three key learning outcomes:

1. Understand steps required to create a GIS project
2. Learn how to use and apply advance GIS tools
3. Complete a project using advance GIS tools to analyze spatial data

Required Text:



Understanding GIS, fourth edition

by David Smith, Nathan Strout, Christian Harder, Steven Moore, Tim Ormsby, Thomas Balstrøm

Paperback and Electronic: 414 pages

Published: 2018

ISBN: 9781589485266

eISBN: 9781589485273

Data required to go through the tutorials in the book can be found online. Use the following URL to access the data:

<https://esripress.esri.com/bookResources/index.cfm?event=catalog.book&id=59> (Links to an external site.)Links to an external site.

Attendance:

If you cannot attend a class meeting, notify the instructor and not the Department of Urban Studies & Planning prior to your absence. It is understood that there will be times when the student will not be able to attend class.

Grading:

Grades are based on the following:

Grading	Percent (%)
(1) Lesson 1-4: "Understanding GIS" Questions	20
(2) Lesson 5-8: "Understanding GIS" Questions	20
(3) ArcGIS Pro Project & Geodatabase	10
(4) Project Document Paper	40
(5) Project Presentation	10

Student Ethics:

Academic Dishonesty (plagiarism, cheating, writing services, improper citations, etc.) is not permitted. Work submitted is assumed to be of the student. If any form of Academic Dishonesty is discovered by the instructor, the student will receive a failing grade for the class.

Student Disability Services:

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations.

Schedule:

Week 1 – August 30:

Course Introduction

Demonstration One:

Week 3 – September 13:

Demonstration Three:

Week 5 – September 27:

Demonstration Five:

Week 2 – September 6:

Demonstration Two:

Week 4 – September 20:

Demonstration Four:

Week 6 – October 4:

Demonstration Six:

Week 7 – October 11:

Demonstration Seven:

Week 9 – October 25:

Demonstration Nine:

Week 11 – November 8:

Work on GIS project

Week 13 – November 22:

No class meeting - Thanksgiving Break

Week 15 – December 6:

Project presentations

Week 8 – October 18:

Demonstration Eight:

Week 10 – November 1:

Demonstration Ten:

Week 12 – November 15:

Work on GIS project

Week 14 – November 29:

Work on GIS project

Week 16 – December 13:

No class meeting

Course Summary:

Date	Details
Thu Nov 1, 2018	Lesson 1-4: "Understanding GIS" Questions due by 6:00pm
Thu Nov 22, 2018	No class meeting 6pm to 9pm
Thu Nov 29, 2018	Lesson 5-8: "Understanding GIS" Questions due by 6pm
Thu Dec 6, 2018	Project Presentation 6pm to 9pm ArcGIS Pro Project & Geodatabase due by 6pm Project Document Paper due by 6pm