Instructor:	Sergio Rey	Lecture:	MW 4:10-6:00
Office:	Rivera 159F	Room:	Olmsted 1126
Hours:	F 1:30-2:30	Slack:	`https://pbpl273w18.slack.com`
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1 Overview

Welcome to Public Policy 273! This course provides a graduate-level introduction to the fundamental concepts of geographic information systems (GIS), geographic information science (GIScience), and their application to public policy and social science research.

Because the vast majority of data researchers encounter has locational information, or is spatially referenced, GIS plays a vital role as an interdisciplinary meeting place. Through lectures, discussions, empirical exercises, and collaborative projects, we will explore the many faces of GIS. These include GIS as a science, GIS as a systems technology, GIS as a discipline, and GIS as an applied problem-solving methodology.

The course will also provide instruction in a variety of open source GIS and spatial analysis software packages including QGIS, OpenGeoDa, and PySAL. The open source revolution has produced these packages as well as a number of excellent tutorials and related project documentation all freely available. The course leverages a selection of these resources to provide an integrated treatment of GIS geared to the social science and public policy student.

The three principal goals of the course are:

- Develop students' understanding of fundamental spatial concepts and theories.

- Provide training in the acquisition, manipulation, processing, visualization, and analysis of geographical data.

- Train students to apply GIScience concepts and methods in public policy and social science research.

2 Prerequisites

Graduate standing or consent of instructor.

3 Grading

One course project and two exams comprise the course grade. The exams will be given "in-class" on the dates listed in the schedule. The course project will be described in detail the second meeting of class. The grading weights and scale are as follows:

Component	Points		
Component	Points	A	90-100
Midterm Exam	20	B	80-89
Final Exam	30	C	70-79
Project	45	D	60-69
Participation	5	F	<60

In addition to the exams and project, course attendance is required. Roll will be taken at the beginning of each class meeting, primarily so that I may learn student's name and assess student's participation. After two missed classes, 1 point will be deducted from your final grade for each additional missed class.

The course may be taken Satisfactory (S) or No Credit (NC) with consent of instructor and graduate advisor.

4   Readings

Readings supporting the lecture are taken from **Longley, P.A., M.F. Goodchild, D.J. Maguire, and D.W. Rhind (2015)** *Geographic Information Science and Systems*, 4th Edition, Wiley.

Additional readings will be assigned and made available on the course learning site.

5   Academic Integrity

The UCR student academic integrity policy lists violations in detail. These violations fall into eight broad areas that include but are not limited to: cheating, fabrication, plagiarism, facilitating academic misconduct, unauthorized collaboration, interference or sabbotage, non-compliance with research regulations and retaliation. For more information about the UCR student academic integrity policy, please use the following web link `http://conduct.ucr.edu/policies/academicintegrity.html`

6   Disability accommodations

Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the quarter either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from the Student Disability Resource Center is required. Disability information is confidential.

7   Code of Conduct

As course instructor, I am dedicated to providing a harassment-free learning experience for all students, regardless of gender, sexual orientation, disability, physical appearance, body size, race, religion, or choice of operating system. All course participants are expected to show

respect and courtesy to other students throughout the semester. As a learning community we do not tolerate harassment of participants in any form.

All communication should be appropriate for a professional audience including people of many different backgrounds. Sexual language and imagery are not appropriate in this course.

Be kind to others. Do not insult or put down other students. Behave professionally. Remember that harassment and sexist, racist, or exclusionary jokes are not appropriate for PBPL273.

Students violating these rules may be asked to leave the course, and their violations will be reported to the UCR administration.

This code of conduct is an adaptation of the SciPy 2017 Code of Conduct.

8 Schedule

Date	Topics	Project
January 8	Geographic Information: Science, Systems and Society Ch 1	
January 10	Geographic Data Representation Ch 2, 3	CVs
January 15	*Martin Luther King JR Holiday* No Class	
January 17	Georeferencing Introduction to GIS Software Ch 4, 6	Team Formation
January 22	Uncertainty Geographic Data Modeling Ch 5, 7	
January 24	Data Collection Geographic Databases Ch 8, 9	
January 29	GeoWeb Ch 10	Proposals
February 5	Cartography and Map Production Ch 11	
February 7	Geovisualization Ch 12	
February 12	**Exam 1**	
February 14	Spatial Data Analysis Ch 13	Data Acquisition
February 19	*Presidents' Day* No Class	

Date	Topics	Project
February 21	Spatial Analysis and Inference Ch 14	
February 26	Spatial Modeling with GI Systems Ch 15	
February 28	Open Science and GIS TBA	Interim Results
March 5	Institutional and Management Issues Ch 16	
March 7	Privacy and Ethics in GIS Ch 18	
March 12	GISS in the Service of Humanity Ch 19	
March 14	Project Presentations	Final Project
TBD	**Final Exam**	

Table 1: Course Schedule (planned)