GEOGRAPHY 4/590: Geospatial Data Science
Winter 2022

Schedule (subject to minor changes)

Week	Day	Date	Lecture x 1 hour	Lab x 2 hours	Project
1	M	Jan 3	Introduction	Getting started with Python	
2	M	Jan 10	Exploring spatial data: tables + vector data	Basics: census data + city stats	
3	M	Jan 17	Exploring spatial data: network data	Basics: walking distances + traveling salesperson	
4	M	Jan 24	Exploring spatial data: gridded data	Basics: land cover classification (pixel + object-oriented)	Project idea + outline
5	M	Jan 31	Machine learning, predictive modeling, model evaluation	Basics: predicting river discharge	
6	M	Feb 7	Accessing data, web scraping (inc. Inside AirBnB case study)	Application 1: wildfire + air quality risk	Project milestone #1
7	M	Feb 14	Data management, version control, big data, cloud	Application 2: public school redistricting	
8	M	Feb 21	Missing data, imbalanced data, feature selection Optimization?	Application 3: wind farm placement **or** assessing flood damage	Project milestone #2
9	M	Feb 28	Ethics and responsibility	No lab: work on project	
10	M	Mar 7	Project presentations	Project presentations	Project submission