ID 210 Course Schedule
Spring 2021
Subject to Revision

Week 1
Wednesday 2/3 - Class Introduction
- Course Overview
- Overview of GIS software
- Types of Geospatial Data
- Data Management for Class
- Google Maps Exercise

Friday 2/5 - Intro to QGIS
Assignment 1 and Quiz 1 due at start of class
- Intro to QGIS platform
- Finding and creating data
- Map Projections
- Brief intro to Vector Data

Week 2
Wednesday 2/10 - Intro to Cartography & Design
Quiz 2 due at start of class
- Creating maps in QGIS
- Colors and Fonts
- Labels & Annotation
- Raster Creation Exercise

Friday 2/12 - Intro to Spatial Data
Assignment 2 due at start of class
- Where to find data online
- Where to find data at Skidmore
- Data Management in QGIS

Week 3
Wednesday 2/17 - Introduction to Raster Analysis
Assignment 3 and Quiz 3 due at start of class
- Reclassification
- Raster Math & Map Algebra
- Zonal Statistics
- Metadata best practices

Friday 2/19 - Introduction to Focal Statistics
Assignment 4a due at start of class
- Euclidean Distance
- Elevation-derived products: Slope, Aspect, Elevation, Hillshade
- Viewshed analysis

Week 4
Wednesday 2/24 -Raster Data Continued
Assignment 4b and Quiz 4 due at start of class
- Finish focal stats
- Classified Raster Data
- Continuous Raster Data
- Orthoimagery
- Data Management

Friday 2/26 - Image Processing
- Mosaicing Images
- Image Bands
- Classifying Imagery

Week 5
Wednesday 3/3 - Image Processing
Quiz 5 due at start of class
- Processing Imagery continued
- Georectification
- Image transformation

Friday 3/5 - Introduction to Vector Data
Assignment 5 and Quiz 6 due at start of class
- Intro to shapefiles, coverages, and layers
- Geodatabases
- Converting/importing other vector data
- Where to find data online
- Where to find data at Skidmore
- Data Management

Week 6
Wednesday 3/10 - Intro to Geoprocessing
- Intersection and Union
- Buffering
- Clipping

Friday 3/12 - Editing Vector Data
Assignment 6a (workflow) due at start of class
- Creating new vector data
- Editing existing vector data
- Filtering Data
- Metadata best practices

Week 7
Wednesday 3/17 - Cartography Review
- Midterm Prep Continued
- Cartography race

Friday 3/19 - Joining Data
Assignment 6b (midterm) and
Quiz 7 due at start of class

- Joining tabular and spatial data
- Joining spatial data
- Finding Census data

Week 8
Wednesday 3/24 - Data Visualization
- Chloropleth maps
- Normalizing Census Data
- Multiple attributes

Friday 3/26 - Tabular to Spatial
Assignment 7 and Quiz 8 due at start of class
- Finding tabular data online
- Visualizing tabular data
- Geocoding
- Projections again!

Week 9
Wednesday 3/31 - Data viz
Assignment 8 due at start of class
- Hexbins
- Generalization
- Summary statistics

Friday 4/2 - QGIS Wrapup
Assignment 9a due at start of class
- Filling in the gaps
- QGIS on your resume
- Google Trends Intro

Week 10
Wednesday 4/7 - ArcGIS
- What is it and why aren't we using it?
- How is it different from QGIS?

Friday 4/9 - ArcGIS Online
Quiz 09 and Assignment 9b due at start of class
- Intro to ArcGIS online at Skidmore
- How to create layers
- Basic geoprocessing
- Publishing a map
- Sharing/embedding maps

Week 11
Wednesday 4/14 - ESRI Story Maps
- Explore Story Map examples
- Begin to create a GIS resume in Story Maps

Friday 4/16 - Dave's
Assignment 10 due at start of class
- Gerrymandering intro

- Dave's redistricting tool

Week 12
Wednesday 4/21 - ArcGIS Online
Final project workflow due at 11:59 pm
- Editable Layers
- Collector for ArcGIS

Friday 4/23 - Google Earth Engine
Assignment 11 due at start of class
- Coding basics
- Remote sensing basics
- Classification exercise

Week 13
Wednesday 4/28 - Google Earth Engine
Assignment 12 due at start of class
- Writing GEE scripts
- Publishing an App

Friday 4/30 - Final Class & Google Earth
Final Project Due at 11:59 pm
- Google Earth Pro basics
- Built in functions: terrain, etc
- Creating and editing data
- Finding data online
- Sharing data
- Historical Imagery
- Viewshed Analysis
- Course wrapup

ID 210 Grading Structure

Assignment	Date	Points
01. QGIS Map	2/5	5
02. QGIS Map II	2/12	10
03. Map Projections	2/17	10
04a. First Problem Workflow	*2/19*	*1*
04b. First Problem Set Due	*2/24*	*14*
05. Fire!	3/5	10
06a. Midterm Workflow	*3/12*	*1*
06b. Midterm Due	*3/19*	*24*
07. Map Copy	3/26	10
08. Pence v Bigfoot	3/31	10
09a. CAFO Workflow	*4/2*	*1*
09b. CAFO Problem Set	*4/9*	*14*
10. Google Trends Map	4/16	10
11. Gerry's StoryMap	4/23	10
12. Google Earth Engine	4/28	5
13a. Final Project Workflow	*4/21*	*2*
13b. Final Project Due	*4/30*	*33*

Quizzes	Date
Q01. QGIS Intro	2/5
Q02. QGIS Map Layout	2/10
Q03. Raster Intro	2/17
Q04. Raster Continued	2/24
Q05. Georeferencing	3/3
Q06. Vector Intro	3/5
Q07. Census Data	3/19
Q08. More Tabular Data	3/26
Q09. ArcGIS Online	4/9

Assignments	58%
Midterm	13%
Final	19%
Participation (includes quizzes)	10%