

UPPP 100 Advanced Geographic Information Systems

Winter 2021 (4 units)

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Satellite imagery of wildfires burning throughout California (NOAA, November 2019)

COURSE DESCRIPTION

Geographic Information Systems (GIS) help us understand social issues with a spatial dimension. Picking up where the prerequisite introductory course left off, this advanced course extends students' technical skills by using geoprocessing to analyze spatial data. At the same time, students take a deeper dive into the theory behind spatial analysis in general and spatial and environmental justice in particular. For the final project, student teams collaborate with the following regional community partners to define and answer a spatial justice-focused research question:

- Climate Action Campaign
- Environmental Health Coalition
- Bike San Diego
- San Diego 350
- San Diego Coastkeeper
- Surfrider Foundation

Adopting an active learning approach, this class combines lectures, tutorials, and skills development applications. Each week, students should expect to:

- Complete a theoretical reading, which will be the subject of a quiz
- Practice map making skills via a tutorial
- Work with their team to create and analyze spatial data to answer a spatial research question

This course is a prerequisite to UPPP 100 Spatial Analysis Project, the capstone course for the GIS Certificate Program.