

# CEL 9027: Spatial Analysis of Public Health Data

## 1. Instructor

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## 2. Description

This short course is designed to provide an introduction to GIS to professionals in public health, epidemiology, medical geography, etc. Topics include mapping spatial data, address matching, working with census data, and vector- and raster-based spatial analysis. Point pattern analysis and areal data analysis will also be covered if time allows. ArcGIS Pro is the software to use.

## 3. Schedule

### Friday

8:30 – 9:30	Lecture 1: Spatial Data in Health
9:30 – 10:15	Lab 1: Introduction to ArcGIS Pro
10:15 - 10:45	Lecture 2: Spatial reference
10:45 – 12: 00	Lab 2: Environmental Pollution in San Francisco
12:00 – 1:00	Lunch Break
1:00 – 2:15	Lecture 3: Census data
2:15 – 4:15	Lab 3: Mapping census data
4:30 – 5:00	Lecture 4: Address matching
5:00 – 5:30	Lab4: Geocoding and address matching

## **Saturday**

8:30 – 9: 30	Lab4 continued
9:30 – 10:00	Lecture 5: Spatial Analysis I
10:00 – 12:00	Lab 5: Ozone, income, and highway proximity in Oakland
12:00 – 1:00	Lunch Break
1:00 – 2:00	Lecture 6: Spatial Analysis II
2:00 – 4:00	Lab 6: Vector-based spatial analysis
4:00 – 5:30	Project