

GEOG 287 : SPATIAL ANALYSIS

Transcript title

Spatial Analysis

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

30

Lab hours

30

Recommended preparation

GEOG 266.

Course Description

Explores analytical capabilities of geographic information systems. Covers techniques to locate and to describe features and moves to advanced techniques based on higher-level spatial objects. Use the ArcGIS Spatial Analyst extension to analyze raster datasets in the lab.

Course learning outcomes

1. Analyze spatial data with geographic information systems (GIS) software tools.
2. Interpret spatial patterns with vector data using proximity and overlay techniques.
3. Model raster data to display spatial patterns.

Content outline

1. Introduction to spatial analysis
2. Vector spatial analysis – part I
3. Vector spatial analysis – part II
4. Geoprocessing with ModelBuilder
5. Raster spatial analysis – part I
6. Raster spatial analysis – part II
7. Raster modeling
8. Linear georeferencing
9. Introduction to data science – part I
10. Introduction to data science – part II

Required materials

This course will require a textbook.