

GIS 200 : Interpreting and Creating GIS Maps

Credits: 3

Class Hours: 3 lecture

Prerequisites: "C" or higher or concurrent enrollment in GIS 189.

Description: This course introduces advanced geospatial analysis techniques, including Global Positioning Systems (GPS), Geographic Information Systems (GIS) database and overlay creation, data classification, location analysis, distribution and density, geovisualization techniques, and map interpretation through the use and application of GIS. This course will combine an overview of general principles of GIS and practical experience in the analytical use of spatial information. Students will gain greater in-depth knowledge of geospatial analysis and examine the social context of mapping and knowledge production, examine the diverse range of GIS applications, and complete a final project with a practical component involving the use of a geospatial analysis software package. Special emphasis and concentration will focus on sustainability, considering the current and future use and protection of resources in light of land management.

Semester Offered: Fall, Spring

Course Student Learning Outcomes (CSLOs):

1. Use advanced geospatial information technologies and techniques including Geographic Information Systems, Global Positioning Systems, and Spatial Analysis to create maps for an area of interest to the student, such as sustainability, site suitability analysis and resource management.
2. Analyze and describe geographic information representation and use of GIS mapping software, identifying how to address complex problems with GIS technologies and to create solutions. Special emphasis and concentration will focus on sustainability, considering the current and future use and protection of resources in light of land management.
3. Differentiate advantages and disadvantages of various geospatial information technologies, both advanced and basic.
4. Apply concepts, techniques, and software tools that are part of Geographic Information Systems, with emphasis on GPS use, geovisualization, data and database development, geospatial analysis, and case-study applications.