

GIS 213 : Advanced Geospatial Techniques

Credits: 3

Class Hours: 3 lecture

Prerequisites: "C" or higher in GIS 205 and GIS 205L.

Description: This course covers the applications of advanced Geographic Information Systems (GIS) technologies to various problems or issues in the social, natural, and environmental sciences. Remote sensing techniques, radar, and satellite imagery map design will be introduced along with an overview of current advances in geospatial technology, including 3D mapping, online, and cloud mapping.

Semester Offered: Fall, Spring

Course Student Learning Outcomes (CSLOs):

1. Identify the advantages and disadvantages of advanced remote sensing technologies.
2. Identify, analyze, and describe geographic information representation and use of advanced GIS mapping software, addressing complex geographic information problems with GIS technologies to create solutions.
3. Describe and analyze advanced geospatial radar and satellite imagery and techniques, in addition to industry advancements in cloud and 3D mapping.
4. Apply strategies for complex problem solving that include geospatial information, using GIS and GPS, Radar and Satellite Imagery, and Remote Sensing.
5. Apply intermediate geospatial knowledge, technologies, and techniques to create a map focused on an area of interest, such as sustainability, site suitability analysis, and resource management.
6. Apply techniques and software tools that are part of advanced Geographic Information Systems, with an emphasis on radar and satellite imagery, remote sensing, and earth observation systems.