Geographic Information Systems (GIS)

GIS 2640
Geographic Information Systems and Surveying
2:2:0 On Sufficient Demand
* Prerequisite(s): EGDT 2400, GEOG 3600
Presents geospatial data and modeling principles and techniques using raster and vector geoprocessing. Teaches Geovisualization and Geospatial information sources, digital terrain modeling, spatial data analysis, and mapping project implementation. Covers concepts of real property related to land registration and information systems and the value of maps for governance, commerce, and research of social and environmental systems regionally, nationally, and globally. Lab access fee of $35 for computers applies.

GIS 3600 (Cross-listed with: GEOG 3600)
Introduction to Geographic Information Systems
4:3:3 Fall, Spring
* Prerequisite(s): [(GEO 1010 and GEO 1015) or (GEOG 1000 and GEOG 1005) or (BIOL 1010 and BIOL 1015) or ENVT 1110 or EGDT 1400 or Instructor Approval] and University Advanced Standing
Introduces the history, theory, and operation of Geographic Information Systems (GIS). Includes an introduction to GIS data sources, database design, data input, spatial analysis, and map production. Offers valuable preparation for careers in geology, geography, geographic information systems, geomatics, planning, surveying, marketing, environmental technology, biology, engineering, and other related fields. Software fee of $18 applies. Lab access fee of $35 for computers applies.

GIS 3620
Advanced GIS for Geomatics
3:3:0 Spring
* Prerequisite(s): (GIS 3600 or GEOG 3600) and University Advanced Standing
Presents Geospatial data and modeling principles and techniques using raster and vector geoprocessing. Teaches Geovisualization and Geospatial information sources, digital terrain modeling, spatial data analysis, and mapping project implementation. Covers concepts of real property related to land registration and information systems and the value of maps for governance, commerce, and research of social and environmental systems regionally, nationally, and globally. Software fee of $18 applies. Lab access fee of $35 for computers applies.

GIS 3640
Thematic Mapping Environmental Impacts
3:3:0 On Sufficient Demand
* Prerequisite(s): GIS 2640 and University Advanced Standing
Analyzes ways to geographically visualize the impact of natural disasters, energy processes, human impacts, and other impacts on the environment. Reviews the regional and global interrelationships of land, water, and atmosphere to the environment. Involves producing a thematic global and regional mapping project(s) considering the environmental impacts or potential impacts as presented in this course. Lab access fee of $35 for computers applies.

GIS 3650
Thematic Mapping Culture and Societies
3:3:0 On Sufficient Demand
* Prerequisite(s): GIS 2640 and University Advanced Standing
Focuses on thematic maps of human activity covering the major cultural regions of the world considering cultural, political, and economic environments. Presents various ways to cartographically depict sociological data such as: population, religion, language, migration, and industries, etc.. Involves producing a thematic global and regional mapping project(s) as presented in this course. Lab access fee of $35 for computers applies.