

GEOGRAPHY INFO SYSTEMS (GIS)

GIS 2040 Fundamentals of Geographic Information Systems**Credit Hours:** 3**Lab Fee:** Yes

This introductory course is designed for the student to acquire a basic understanding of geographic terms and concepts necessary for the appropriate use of Geographic Information Systems (GIS), using spatial variables, scale, map projection, and map coordinate systems.

GIS 2047 Applications of GIS, GPS, and Remote Sensing**Credit Hours:** 3**Prerequisites:** GIS 2040 with a grade of "C" or higher**Lab Fee:** Yes

Students in this course will use their knowledge of mapping and cataloging to complete numerous geospatial applications. Topics include displaying, managing, querying, symbolizing, and creating geospatial data. Students will learn the skills required to work on and/or build advanced Geographic Information Systems (GIS)/ Remote Sensing (RS) projects.

GIS 2060 Advanced Geographic Information Systems**Credit Hours:** 3**Prerequisites:** GIS 2047 with a grade of "C" or higher**Lab Fee:** Yes

This course is a continuation of Fundamentals of Geographic Information Systems (GIS) and Applications of GIS, global positioning systems (GPS), and remote sensing. Topics include: managing, analyzing, and displaying spatial information on a computer that combines computer cartography with a database management system. Students will continue their study of the United States (U.S.) GPS system and remote sensing, integrating these technologies with the GIS software.

GIS 2948 Service-Learning Field Studies 1**Credit Hours:** 1

This course provides the student the opportunity to understand the relationship of theory to practice through participation in a service-learning experience. Students are required to complete 20 hours of volunteer work, a service-learning contract, and an oral and written reflection of the experience.