GIS 4415: Practicum in Geographic Information Systems

3 Credit Hours

Prerequisite: (GEOG 4405 or GEOG 4500) and permission of the GIS program director.

This is a capstone course for the GIS Certificate Program and is designed to integrate students' prior training in geospatial theory, technologies and/or data analyses through the use of geographic information systems in on-site work settings. Student experiences are applied in nature and are on campus or with selected private or public organizations in the community. Students find and obtain their own practicums, which require the GSS Internship Coordinator's approval.

GEOG 1101: Introduction to Human Geography

3 Credit Hours

This course is a survey of global patterns of resources, population, culture, and economic systems. Emphasis is placed upon the factors contributing to these patterns and the distinctions between the technologically advanced and less advanced regions of the world.

GEOG 1110: The Digital Earth

3 Credit Hours

This is a survey course for students with an interest in geographic theories, laws, fundamentals, methods, environmental applications and visualizing natural phenomena. With a focus on physical geography, students learn about geographic principles of place and space, as well as introductory geospatial techniques such as map reading, coordinate systems, scale, distance, direction, global positioning system (GPS), geographic information system (GIS), remote sensing, and spatial analysis. Students also learn basic skills in collecting, manipulating, and understanding geospatial data by creating and analyzing maps, aerial photos and satellite imagery to solve problems and interpret the environment.

GEOG 1112K: Introduction to Weather and Climate

4 Credit Hours

Components of weather processes, and their measurement. Climatic elements and their control factors. Geographic classification of climatic and vegetative types on the Earth's surface. The lab focuses on practical and applied aspects of these environmental systems and evidence-based research. Lab work includes map reading, data collection, and data analysis.