

# GEOGRAPHY

Geography studies the interaction between people and their environments including the ways in which the people, the environments, and the interactions all vary from place to place over the earth. Because it is concerned with the character of people and their cultures on the one hand, and with the character of the earth's surface and its resources on the other, it is both a social and a natural science. Being broad and integrative, geography provides an appropriate foundation for a liberal education. It also provides a base for employment in public or private agencies, both domestic and international, concerned with environmental management, locational analysis or planning (urban, regional, land use).

Cartography/GIS, also known more broadly as geographic information science, studies and develops digital technology and the theory behind this technology to help people work with geographic information. This broad area interfaces with work from the physical and social sciences. It is a field devoted to the acquisition, management, analysis, visualization, and representation of geospatial data. It is a relatively new discipline that incorporates geography, cartography, spatial analysis, and related fields such as geovisualization, geodesy, geocomputation, cognition, and computer science. At the present time professionals trained in geographic information science are very much in demand by federal agencies, state and local governments, and private firms.

The student desiring a limited introduction to the field of geography may select any introductory course in cultural or physical geography. Students with special interests in any of a number of fields outside of geography, such as history, political science, economics, anthropology, sociology, meteorology, geology, etc., will find useful background courses in geography. The student desiring a limited introduction to the field of GIScience may select either GEOG 170 Our Digital Globe: An Overview of GIScience and its Technology or GEOG 370 Introduction to Cartography or GEOG/CIV ENGR/ENVIR ST 377 An Introduction to Geographic Information Systems. Students in landscape architecture, urban and regional planning, civil and environmental engineering, medical illustration, or the environmental sciences may find GIScience a useful addition to their major course of study.

Department course offerings are listed in five major groups:

1. Physical Geography: Earth Systems and Environmental Processes
2. People–Environment Interaction
3. Human Geography
4. Area Studies and Global Systems
5. Cartography and Geographic Information Science

Courses in groups 1 and 5 are counted as physical science; those in groups 2 (except GEOG/ENVIR ST/SOIL SCI 230 Soil: Ecosystem and Resource and BOTANY 240 Plants and Humans), 3, and 4 are counted as social science.