

GEOGRAPHY & ENV PLANNING (GE)

GE 2002 Human Geography (3)

Provides Geography and Environmental Planning majors an introduction to the field of human geography, with a particular focus on the various subfields and their relationship to the social sciences. A general introduction to the field, open to any student. Reviews key concepts, viewpoints and methods of cultural geographers in examining how human activity is organized. Springs.

GE 2040 Digital Cartography (2)

The basic elements of Cartography are discussed and illustrated with practical experience. Students learn the principles of effective digital mapping and become familiar with the types of problems that Geographic Information Systems (GIS) can solve. Covers the essential elements such as spatial reference systems, scale, generalization, projection, symbolization, and geospatial databases from satellite images, GPS, and GIS. Falls.

GE 2050 GIS I: Introduction to Geographic Information Systems (4)

An introduction to the theoretical and applied aspects of Geographic Information Systems (GIS). Students learn about the principles and implementation of GIS and obtain practical experience in the application of GIS to real-world problems. Includes vector/raster data, geodatabase management, coordinate system, datum, map projections, GPS, 3D visualization, and quantitative data analysis and visualization in GIS. Not open to students who have earned credit for GE 3270. Falls and Springs. (QRCO) (TECO)

GE 2200 Human Geography (4)

This course provides students with an opportunity to view a variety of cultural topics from a geographic perspective. We look at regions of culture (including economy, politics, health, development), and investigating the processes that have influenced these patterns. Students will have opportunities to connect the course content to areas of their own major or interests. Falls.

GE 3020 Geography for Educators (3)

Provides students opportunities to master the fundamental concepts and varied geographic traditions (physical geography, human geography, and area analysis) in preparation for teaching at elementary, middle and high school levels. Utilizes the NH Department of Education curriculum frameworks and NCSS standards to identify content and instruction methods within geography courses and in geographic connections within other content areas. Limited to Teacher Certification majors only. Springs. (GACO)

Prerequisite(s): permission of instructor.

GE 3030 Urban Geography (3)

An examination of the evolution of the contemporary urban system, emphasizing the role of cities and metropolitan areas as concentrations of social and economic activity. Particular focus is given to the historical evolution of urban form and function, including patterns of land use, residential change, commercial activity, manufacturing and transportation. While the primary subject is the American city, some comparisons to international urbanization are made. Falls.

Prerequisite(s): Junior status.

GE 3050 GIS II: Advanced Geographic Information Systems (4)

Advanced topics in understanding and using geographic information systems (GIS). Emphasizes the organizational and legal context of GIS use, professional issues, communication between different GIS software, and GIS project implementation and management. Covers advanced vector/raster data analysis, GPS data management, spatial analysis, aerial photo interpretation, satellite images, 3D visualization, and GIS modeling. Fall and Springs.

Prerequisite(s): GE 2050 or GE 3270.

GE 3080 Economic Geography (4)

Introduces students to the major themes and issues addressed in critical economic geography. Focuses on development, resources, theories, and the impacts of economic systems across the global landscape. Gives students a greater appreciation and understanding of the myriad of cultural political and economics forces shaping our world. Fall or even years.

GE 3260 The Physical Geography of National Parks (3)

A survey of the physical geography of the United States through a sample of our National Parks. These Parks have within them examples of many diverse landforms and demonstrate the tectonic and geomorphic processes responsible for the evolution of landforms throughout the United States. Using the example of the National Parks, examines the tectonics of the Eastern and Western United States, the effects of alpine and continental glaciation and periglacial processes, and the impact of fluvial processes within the context of landscape regions such as the Appalachians, the Great Plains, the Rocky Mountains, and the Sierra-Cascades system. Unscheduled.

GE 3970 Internship (1-6)

Students engage in an individualized work program at an agency that emphasizes some aspects of planning, tourism, GIS or other related to their field(s) of study. Minimum time required is 10 hours/week for 1 semester. Repeatable for a maximum of 6 credits.

Prerequisite(s): approval of the discipline's Internship Program Coordinator.

GE 4010 Remote Sensing and Digital Image Processing (4)

An introduction to the basics of remote sensing, characteristics of remote sensors, and remote sensing applications in multiple academic disciplines and professional sectors. Covers remote sensing principles, aerial photography, digital image processing and interpretation, major remote sensing systems, image display and enhancement, information extraction, digital image data classification, and accuracy assessment. Not open to students who has earned credit for GE 3350. Falls and Springs.

Prerequisite(s): GE 2050.

GE 4040 Topics in Geospatial Technologies (1-4)

Introduces students to geospatial technologies and techniques used across various fields and disciplines. Examples might include topics in Advanced Geographic Information Systems, Geographic Information Sciences, Geomatics, Geodetics, Remote Sensing, Air Photo and Satellite Data or Surveying. Falls. May be repeated for credit with a different topic for a maximum of 3 times.

GE 4050 Geospatial Technology Applications (4)

Advanced methods, theories, and applications of geographic information systems (GIS) to various geographic problems. Emphasizes the applications of GIS and advanced acquisition of technology and skills in managing and analyzing spatially referenced data and information. Covers advanced raster data analysis, GPS application, spatial statistics, remotely sensed image analysis, advanced GIS modeling, 3D analysis and printing, and web GIS. Springs and Falls.
Prerequisite(s): GE 2050

GE 4060 GIS Programming (4)

Geographic Information Systems (GIS) programming and the development of algorithms for spatial analysis. Focuses on concepts, principles, and techniques of programming to solve a variety of geographic problems. Covers the concepts, methods, and approach to object-oriented programming and GIS solutions to automate geoprocessing tasks to explore, handle, manipulate, and model spatial data. Fall of odd years.
Prerequisite(s): GE 2050.

GE 4100 Geographic Information Systems Internship (1-4)

Students engage in an individualized Geographic Information Systems (GIS) work program in government, business, non-profit, educational or other related organizations which emphasizes some aspects of GIS application to their field(s) of study. Repeatable for a maximum of 4 credits. Falls and Springs.
Prerequisite(s): GE 2050 and permission of the instructor.

GE 4120 Topics in Human Geography (3)

Introduces students to 1 of the fields of Human Geography. Examples might include Cultural Geography, Social Geography, Economic Geography, Medical Geography, the Geography of Religion, or the Geography of Sport. Fall of odd years.

GE 4150 Topics in Geography (3)

A methodological study of the spatial aspect of such selected topics as the geography of sports, landforms education and map-making.

GE 4910 Independent Study (1-3)

Background in geography through reading and research, supplementing previous course work in the field. A research paper, periodic conferences and an oral examination may be required. Consent required of the instructor who will supervise the independent study and the Department Chair.