Geography (GEOG)

GEOG 1000  
Introduction to Physical Geography  
3:3:0  
Fall, Spring, Summer  
Explores the world through each of the major components of physical geography: climatology, hydrology, geomorphology, and biogeography, focusing on how they are interrelated. Emphasizes the dynamic interactions among climate, vegetation, soils, and landforms. Can be taken in conjunction with laboratory exercises in GEOG 1005.

GEOG 1005  
Introduction to Physical Geography Lab  
1:0:2  
Fall, Spring  
* Prerequisite(s) or Corequisite(s): GEOG 1000

Designed to be taken in conjunction with GEOG 1000. Explores the world from a broad perspective, examining each of the major components of physical geography: climatology, hydrology, geomorphology, and biogeography. Investigates physical processes of and interactions among climate, vegetation, soils, and landforms.

GEOG 130G  
Survey of World Geography Gl  
3:3:0  
Fall, Spring, Summer  
Explores the world in which we live. Studies major countries of the world with special emphasis on location, physical environment, culture, resources, and current events. May be delivered online.

GEOG 1400  
Introduction to Human Geography  
3:3:0  
Fall  
Examines the theoretical aspects of human activity across the Earth's surface. Discusses the analytical frameworks for understanding the interactions of social, cultural, economic and political systems. Topics include population dynamics, international development, human conflicts, and urbanization.

GEOG 1600  
Geography of Utah  
3:3:0  
Fall  
Applies principles and methods of physical, cultural, and human-environment geography to the study of Utah's people, places, and environments; considers problems of adjustment, including natural hazards, environmental concerns, and human problems. Designed for Secondary Education students seeking Geography or Social Science Composite certifications.

GEOG 2100  
Geography of the United States  
3:3:0  
Spring  
Surveys primarily the regional geography of the United States and, secondarily, of Canada. Explores subregions of each country in detail. Includes topics such as culture, environment, economy, urbanization, transportation systems, territory and political borders.

GEOG 2200  
Geography of Europe  
3:3:0  
On Sufficient Demand  
Provides a regional survey of Europe including topics such as economic development, environment, politics, society and culture. Explores the place of Europe in geopolitical and global economic systems. Discusses internal relationships within the European Union, Eastern Europe and Russia.

GEOG 2500  
Geography of Latin America and the Caribbean  
3:3:0  
Fall  
Surveys the Americas south of the United States. Explores each subregion of Latin America and the Caribbean in detail. Includes topics such as development, environment, indigenous peoples, history, and national political and financial crises.

GEOG 3010  
Economic Geography  
3:3:0  
On Sufficient Demand  
* Prerequisite(s): University Advanced Standing

A course encompassing the study of humankind's economic activities on the earth, including hunting, gathering, agriculture, mining, manufacturing, forestry, fishing, high technology, and world trade. Studies population, environmental issues, urban patterns, and travel and tourism. Uses lectures, oral response, field trips, and audiovisual aids.

GEOG 3100  
Cartography  
3:2:3  
Spring  
* Prerequisite(s): (MAT 1030 or STAT 1040 or MATH 1050 or higher) and (GEO 1010 or GEOG 1000 or GEOG 1300 or equivalent); and University Advanced Standing

Introduces fundamental principles of cartography including perception, visualization, topographic and thematic map interpretation, field mapping techniques (including GPS), and creating computer-based maps. Includes concepts of direction, scale, grids, projections, spatial transformations, spatial data analysis, data manipulation decisions, color theory and application, and principles of cartographic design and critical evaluation.

GEOG 3110  
Urban Geography  
3:3:0  
Fall  
* Prerequisite(s): University Advanced Standing; GEOG 1300 preferred

Focuses on the origins, growth, structure and function of cities. Examines social and political dimensions of urban life and the emergence of new urban spaces around the world. Includes case studies in the decline of urban industrial America and the rise of Sunbelt and Edge Cities.

GEOG 3150  
Social Geography  
3:3:0  
On Sufficient Demand  
* Prerequisite(s): (ENGL 2010 or ENGL 2020 or instructor approval) and University Advanced Standing

Takes a spatial approach to understanding society, premised upon the notion that geographic space and social relationships are inescapably linked. Examines networks and relationships between individuals and groups at a number of scales, from interpersonal to global. Explores topics such as discrimination, segregation, poverty and homelessness.

GEOG 3250  
Cultural Geography  
3:3:0  
On Sufficient Demand  
* Prerequisite(s): (ENGL 2010 or ENGL 2020 or instructor approval) and University Advanced Standing

Explores the cultural landscape of the world’s peoples. Describes the geographic complex of cultural forms including language, religion, music, art, architecture, folklore, food, clothing and land use. Topics include cultural conflicts, globalization, and the international entertainment industry.

GEOG 3400  
Environmental Remote Sensing  
3:2:3  
Spring  
* Prerequisite(s): (MATH 1050 or MATH 1055) and STAT 2040 and (PHYS 2010 or PHYS 2210) and (GEOG 3600 or GIS 3600); and an upper division course in natural science recommended; and University Advanced Standing

Introduces the history, theory, and operation of remote sensing software. Includes an introduction to the electromagnetic spectrum and signals, sensors, image processing, and classification techniques. Provides a survey of the concepts and techniques of remote sensing and image analysis for mapping and monitoring natural resources, environment and land use, and an array of geoscientific applications at different scales.
GEOG 3430
Political Geography
3:3:0 On Sufficient Demand
* Prerequisite(s): University Advanced Standing
Surveys the geographic dimensions of political action and theory at local, national and global scales. Covers topics such as geopolitics, nationalism, territoriality, and political conflicts. Examines subjects such as American electoral patterns, Cold War geographies, and 21st century global security.

GEOG 3500 (Cross-listed with: GEO 3500)
Geomorphology
4:3:3 Spring
* Prerequisite(s): MATH 1050 or MATH 1055 or equivalent, University Advanced Standing, and one of the following lecture and lab pairs: (GEO 1010 and GEO 1015) or (GEOG 1000 and GEOG 1005)
Examines the geologic processes operating at the Earth’s surface to understand the origin of our planet’s varied landscapes. Explores how landforms respond to climate change, tectonic forcing, and changes in land use. Addresses common geomorphic processes including weathering, soils, hill slope processes, fluvial processes and landforms, aeolian transport, glacial and periglacial environments, karst, and coastal processes.

GEOG 3600 (Cross-listed with: GIS 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. Lab access fee of $30 for computers applies.

GEOG 3650
Advanced Geographic Information Systems
4:3:3 Spring
* Prerequisite(s): GEOG 3600 and University Advanced Standing
Expands on GEOG 3600, Introduction to Geographic Information Systems (GIS), and reviews advanced GIS functions and applications to the sciences. Fundamental topics include spatial analysis, geostatistical analysis, 3-D modeling, and project development and implementation.

GEOG 3700
Wetland Studies
3:3:0 Fall
* Prerequisite(s): GEOG 1000 OR GEO 1010 OR ENVT 1110 OR BIOL 1010 OR CHEM 1110 OR Instructor Approval; and University Advanced Standing
Examines the structure and function of wetlands with emphasis on wetland biogeochemistry processes, soils, hydrology, flora and fauna, mitigation and restoration, policies and regulations. Explores research methods applied in wetland studies. Provides students with essential skills to critically evaluate wetland issues to make informed decisions. Prepares students to conduct research and communicate scientific information.

GEOG 3705
Wetland Studies Laboratory
1:0:3 Fall
* Prerequisite(s): GEOG 1010 OR ENVT 1110 OR BIOL 1010 OR CHEM 1110; and University Advanced Standing
* Corequisite(s): GEOG 3700
Designed to be taken in conjunction with GEOG 3700. Applies techniques for sampling and mapping of wetland soils, plants, water, etc. and analyzes chemistry of wetland samples using modern instrumentation to address outstanding scientific questions related to wetlands. Addresses skills to interpret and present scientific data. Normally includes field trips.

GEOG 3800 (Cross-listed with: HIST 3800)
Environmental History of the United States
3:3:0 On Sufficient Demand
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing
Examines human modification of the American landscape. Surveys the physical geography of the United States, landscape change during Native American to European transition, and causes of agricultural and industrial pollution. Topics include land ethics, processes of environmental degradation, technological remedies, history of federal laws and protection agencies. May include field experiences.

GEOG 4100
Geospatial Field Methods
3:2:3 Fall
* Prerequisite(s): (GEOG 3600 or GIS 3600) and MATH 1060; University Advanced Standing
Provides an introduction to measuring, recording, and finding geographic locations in the field using GPS and other methods widely used in industry and research. Applies GPS and other field techniques to scientific problems, and emphasizes hands-on experience with field equipment. Covers geographic reference frames, and integrates field data with desktop GIS software.