

## **GEOG: GEOGRAPHY**

### **GEOG 1101 Introduction to Human Geography 3-0-3**

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 1102 World Regional Geography 3-0-3**

Examination of the interaction among the developed and developing regions of the world. Particular emphasis is placed on the interrelationships of historical, cultural, economic and political elements in critical areas of the world.

### **GEOG 1103 Geographic Perspectives on Multiculturalism in the U.S. 3-0-3**

Geographic factors underlying multiculturalism and ethnic relationships in the U.S. Three interrelated themes are emphasized: the spatial development and organization of culture; population growth, migration, and urbanization; and the spatial dimensions of political, economic, and social processes.

### **GEOG 1110 Our Hazardous Environment 3-0-3**

**Also offered as GEOL 1110. Students may not receive academic credit for GEOG/GEOL 1110 if they receive academic credit for GEOG 1112 or GEOL 1121.** A detailed examination of physical environmental hazards that influence human health and habitation. Lectures focus on the causes, processes, and results of naturally occurring and human-induced geologic, hydrologic, and atmospheric events, such as earthquakes, mud slides, floods, hurricanes, soil erosion, and nuclear and toxic waste. Some mathematics is used.

### **GEOG 1112K Introduction to Weather and Climate 3-2-4**

Components of weather, weather processes, and their measurement. Climatic elements and their control factors. Geographic classification of climatic and vegetation types on the Earth's surface.

### **GEOG 1113K Introduction to Land forms 3-2-4**

Introductory analysis and classification of major types of land surfaces, stressing geographic characteristics. Study and interpretation of relationships between landforms and other phenomena through maps, air photos, and field observations. World coverage with emphasis on North America.

### **GEOG 2010 Tools of Environmental Geography 0-2-1**

An introduction to research techniques for the incoming Environmental Geography major. Includes laboratory safety, research methods, exploration of resources (library and Internet), and an outline of the discipline.

### **GEOG 3010 Computer Cartography 2-2-3**

**Prerequisites: GEOG 1113 or GEOL 1121.** An introduction to computer-based map production, including cartographic principles such as figure-ground relationships, data representation and symbolization, generalization, titling and labeling. Basic geographic database management will also be introduced.

**GEOG 3051 Introduction to Geographic Information**

**Systems and Remote Sensing**

**2-2-3**

**Prerequisites:** CS 1000, MATH 2620, GEOG 3010. Survey of GIS hardware and software, spatially referenced database management and querying. The latter part of the course will integrate multispectral satellite imagery into GIS, with an emphasis on data processing and interpretation. Laboratory exercises supplement lecture topics.

**GEOG 3052 Advanced Geographic Information Systems**

**2-2-3**

**Prerequisite:** GEOG 3051. Advanced applications of GIS including: overlay analysis, writing short macros for repetitive operations, spatial modeling and technical support of complex land use and natural resource management decision making. Laboratory exercises designed to form a cartographic and software portfolio for students.

**GEOG 3053 Application Issues in Geographic Information Systems**

**3-0-3**

**Prerequisite:** GEOG 3052. Operational and planning issues in GIS. Students will learn which issues need to be considered when proposing and implementing a GIS and will have opportunities to evaluate how a GIS can be used to solve specific planning problems.

**GEOG 3100 Regional Planning and Environmental Management**

**3-0-3**

**Prerequisite:** Consent of instructor. Introduction to planning for economic development, service provision and resource management at scales larger than municipalities with an emphasis on the environmental impacts of planning policy and regulation.

**GEOG 3150 Meteorology and Climatology**

**3-0-3**

**Prerequisites:** GEOG 1112 and 1113, MATH 1113. A detailed examination of atmospheric motions and climatic controls including the Earth's radiation and energy balance, air mass dynamics, weather systems, and past and present climates of the Earth.

**GEOG 3210 An Introduction to Hydrology**

**3-2-4**

**Prerequisites:** GEOL 1121 or GEOG 1112 and GEOG 1113. An introduction to surface and sub-surface hydrology, examining components of the hydrologic cycle. Topics include local and global water balance, precipitation, interception and infiltration, runoff, stream flow, water storage, and groundwater. This course makes use of some mathematical equations.

**GEOG 3300 An Introduction to Process Geomorphology**

**3-2-4**

**Prerequisite:** GEOL 1121, or GEOG 1112 and GEOG 1113. An introduction to process geomorphology examining landforms and their formative processes. Topics include weathering and slope, fluvial (river), coastal, aeolian (wind), glacial and periglacial processes. This course makes use of some mathematical equations.

**GEOG 3310 Physiography of North America**

**3-0-3**

**Prerequisites:** GEOL 1121, or GEOG 1112 and 1113, or consent of the instructor. The physiographic description, including the landforms, soils, structural framework, climate, plant and animal geography, natural resources, and the unique environmental problems of each major physiographic province of the United States and Canada, including Alaska, Hawaii, and Puerto Rico.

- GEOG 3320 Geomorphology of Fluvial and Coastal Environments** 3-0-3  
**Prerequisite:** GEOG 3300. An examination of processes and landforms in fluvial (river) and coastal environments. Fluvial topics include channel geometry and pattern, characteristics of flow, sediment load, bedforms, and floodplains. Coastal topics include the study of waves and tides, coastal sediment transport, beaches, and the effects of changing sea level. This course makes use of some mathematical equations.
- GEOG 3410 Cultural Geography** 3-0-3  
**Prerequisite:** consent of the instructor. A study of the Earth as the home of humankind, emphasizing the spatial and functional complexes of human geography. Topics to be considered are population, settlement form, settling processes, resources, and economic, political, and societal organizations.
- GEOG 3510 Urban Community Planning** 3-0-3  
**Prerequisites:** GEOG 1102. Principles and applications of planning for neighborhoods, towns and cities with an emphasis on the United States. Topics covered include: public services, land-use decision making, economic development, growth management and the role of non-government organizations.
- GEOG 3610 Economic Geography** 3-0-3  
**Prerequisites:** GEOG 1102, or GEOG 1112 and 1113, or consent of the instructor. A study of area variations in human economic activities as related to production exchange, and consumption of economic goods and services. Emphasis is placed on location of economic activities and related theories.
- GEOG 4700 Field Methods in Environmental Geography** 2-4-4  
**Prerequisite:** Junior Standing and consent of instructor. Study of field techniques and field problems in physical geography. Course includes classroom presentations, field projects, field trips, and writing technical reports.
- GEOG 4800 Internship in Environmental Geography** 0-6-3 to 0-12-6  
**Prerequisite:** consent of instructor and department head. A supervised, practical experience using physical geography skills in an appropriate organization. Provides the student with an opportunity to apply skills learned during pursuit of environmental geography degree to real world situations. (Graded on S/U basis).
- GEOG 4850 Capstone in Environmental Geography** 3-0-3  
**Prerequisite:** consent of instructor. Discussion of the scholarly use of materials in various aspects of physical geography, training for effective data collection and analysis, and practice in effective presentation in both written and oral form.
- GEOG 4900 Special Topics in Geography** 1-0-1 to 4-4-6  
**Prerequisite:** consent of instructor. Topic to be assigned by instructor; the course may be repeated more than once if the topics are different.
- GEOG 4990 Directed Study in Geography** 1-0-1 to 4-4-6  
**Prerequisite:** at least Junior standing and permission of advisor, instructor, and Department Head. Study in area or subject not normally found in established courses offered by the department; may also allow students to explore in more detail and/or depth an area or subject covered by the department.

## GEOL: GEOLOGY

### **GEOL 1110 Our Hazardous Environment** 3-0-3

Also offered as GEOG 1110. Students may not receive academic credit for GEOG/GEOL 1110 if they receive academic credit for GEOG 1113 or GEOL 1121. A detailed examination of physical environmental hazards that influence human health and habitation. Lectures focus on the causes, processes, and results of naturally occurring and human-induced geologic, hydrologic, and atmospheric events, such as earthquakes, mud slides, floods, hurricanes, soil erosion, and nuclear and toxic waste. Some mathematics is used.

### **GEOL 1121K Principles of Physical Geology** 3-2-4

An introduction to the physical processes responsible for the formation and ever-continuing modification of our Earth. Topics covered include the structure of the Earth and plate tectonics, volcanoes and earthquakes, formation of minerals and the rock cycle, origin and evolution of the landscape, and groundwater and energy resources.

### **GEOL 1122K Principles of Historical Geology** 3-2-4

An introduction to the physical and biological development of the Earth from its cosmic beginning to the present, with emphasis on reconstructing sedimentary environments, tectonic processes, and life forms represented in selected regions of North America. Topics covered include families of rocks, principles and concepts of geologic time, origin and interpretation of sedimentary rocks, evolution, plate tectonics, origin of the solar system, and a survey of Earth History through time.

### **GEOL 3010 Environmental Geology** 2-2-3

**Prerequisite: Two natural science lab courses.** The application of basic geologic principles and techniques to problems in land-use planning, resource management, waste disposal, conservation, energy plant siting, under-and-above-ground construction, subsidence, construction in seismic areas, slope-stability, urban development and other problems resulting from human interaction with the geological habitat.

### **GEOL 3020 Earth Science** 3-3-4

**Prerequisite: Two natural science lab courses.** The chemistry, geology, meteorology, and oceanography of the Earth and the Earth's place in the Universe. Three lectures and one three-hour laboratory/field period per week.

### **GEOL 3050 Oceanography** 3-0-3

**Prerequisite: Two natural science lab courses.** The physical, chemical, geological, and biological characteristics of the ocean and the interactions between the hydrosphere, lithosphere, atmosphere, and biosphere.

### **GEOL 3100 Principles of Mineralogy/Petrology** 2-3-3

**Prerequisites: Sophomore standing, GEOL 1121K and GEOL 1122K, and consent of instructor.** An introduction to mineral and rock identifications, and the study of the genesis, occurrence, and uses of common minerals and rocks. Laboratory consists of identification of common rocks and minerals.

- GEOL 3101 Mineralogy** 3-3-4  
**Prerequisites:** GEOL 1121K and CHEM 1151K-1152K, or their equivalents, and/or consent of the instructor. The classification, identification, and crystallography of the principal rock-forming minerals, silicate and non-silicate; and the introduction of the use of the petrographic microscope in the study of the crystallography and identification of minerals.
- GEOL 3102 Petrology and Petrography** 3-3-4  
**Prerequisite:** GEOL 3101 and/or consent of instructor. Genesis classification, and properties of igneous, metamorphic, and sedimentary rocks. Laboratory includes the use of analytical methods, hand specimens, thin-section study with the petrographic microscope, and the macroscopic and microscopic properties of important rock types.
- GEOL 3210 History of Life** 2-3-3  
**Prerequisite:** Sophomore standing and consent of instructor. Principles of paleontology with emphasis on the history of life including vertebrates. Includes an account of the outstanding forms of life from the beginning of earthtime to the present, and those paleontologically significant groups that are uncommon, different, or extinct today.
- GEOL 3220 Invertebrate Paleontology** 2-2-3  
**Prerequisites:** GEOL 1122K or BIOL 2270 or permission of instructor. Identification, classification, and natural history of major groups of invertebrates preserved as fossils in the geologic record, with special attention to those forms commonly encountered in the southeastern United States. Emphasis in laboratory will include taxonomic affinities and functional morphology. Saturday (optional) field trips will be scheduled to local areas of interest.
- GEOL 3230 Vertebrate Paleontology** 2-2-3  
**Prerequisites:** GEOL 1121K and GEOL 1122K, or BIOL 2010 and BIOL 2270. Geologic history and evolution of animals with backbones, with coverage of extinct groups such as the Dinosauria.
- GEOL 3250 Micropaleontology** 2-2-3  
**Prerequisites:** GEOL 1122K, GEOL 3210, or consent of instructor. The classification, stratigraphic relationships, and methods of study of microfossils with emphasis on the stratigraphically important groups.
- GEOL 3410 Structural Geology** 2-2-3  
**Prerequisites:** GEOL 1121K and GEOL 1122K; MAT 1112 or equivalent. The discussion of structural features of the rocks such as folds, faults, joints, cleavage, and primary structures, including their origin, classification, analyses and economic relationships. A study of tectonic plate motion is included. Laboratory work includes depth and thickness problems, structure sections, and structure contour maps.
- GEOL 3450 Field Methods in Geology** 2-4-4  
**Prerequisites:** Sophomore standing, GEOL 1121K and GEOL 1122K, and consent of instructor. An introduction to the basic tools and techniques used in preparation of topographic and geologic maps, and profiles and cross-sections. Includes uses of level table, alidade, Brunton compass, and aerial photographs.

- GEOL 3500 Principles of Geochemistry** 2-2-3  
**Prerequisites:** GEOL 1121K, CHEM 1151K, or consent of the instructor. Chemical principles applied to the study of geological and environmental processes. Topics covered include radiogenic and stable isotopes, thermodynamics, aqueous solutions, oxidation-reduction reactions, and mineral-water equilibria. Application of these concepts to weathering processes, water chemistry, geothermometry, radiometric dating, and other geologic topics. Two lectures and one laboratory per week.
- GEOL 3710 Introduction to Soil Science** 2-2-3  
**Prerequisites:** GEOG 1112K and GEOG 1113K. Examines the nature, formation, properties, and distribution of soil, stressing analysis and use of soils for proper urban, agricultural, and environmental purposes. Two lectures and one laboratory per week.
- GEOL 4110 Principles of Stratigraphy** 3-0-3  
**Prerequisites:** GEOL 1121K and GEOL 1122K. **Corequisite:** GEOL 3410. The interrelationships of stratigraphy, sedimentation, and paleogeography; methods in stratigraphy and correlation.
- GEOL 4900 Special Topics in Geology** 1-0-1 to 4-4-6  
**Prerequisite:** GEOL 1121K and GEOL 1122K, or equivalent, and consent of instructor. Topics to be assigned by instructor; may be taken more than once if topics are different; up to a total of 6 credit hours.
- GEOL 4950 Directed Studies in Geology** 1-0-1 to 4-4-6  
**Prerequisites:** GEOL 1121K and GEOL 1122K; **Junior standing; and permission of advisor, instructor, and Department Head.** Study of subjects not normally found in established courses offered by this department; may also allow students to explore in more detail and/or depth subjects covered by this department, up to a maximum of 6 credit hours.

## GRMN: GERMAN

- GRMN 1001 Beginning German Language and Introduction to German Culture, I** 3-0-3  
 Emphasis on the development of proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions. GRMN 1001 is not open for credit to students with two or more years of high school German or the equivalent.
- GRMN 1002 Beginning German Language and Introduction to German Culture, II** 3-0-3  
**Prerequisite:** GRMN 1001 or the equivalent. A continuation of GRMN 1001, with emphasis on proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions.

- GRMN 1111 Intensive German Language & German Culture** 3-0-3  
**Prerequisite:** Two or more years of high school German or the equivalent. Emphasis on the development of proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions. GRMN 1111 is a one-semester combination of GRMN 1001 and GRMN 1002. This course is designed for those students not fully prepared for the 1002 level. GRMN 1111 reviews the concepts presented in GRMN 1001 and advances the student through the material of GRMN 1002.
- GRMN 2001 Intermediate German Language and German Culture, I** 3-0-3  
**Prerequisite:** GRMN 1002 or the equivalent. Emphasis on the development of proficiency and communicative competence at the intermediate level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness and understanding of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- GRMN 2002 Intermediate German Language and German Culture, II** 3-0-3  
**Prerequisite:** GRMN 2001 or the equivalent. A continuation of GRMN 2001, with emphasis on proficiency and communicative competence at the intermediate level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness and understanding of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- GRMN 3310 Intermediate Reading** 3-0-3  
**Prerequisite:** GRMN 2002 or consent of instructor. The development of students' proficiency in spoken and written German. The readings will be based on material from contemporary sources, including prose, poetry, and theater.
- GRMN 3320 Intermediate Grammar and Composition** 3-0-3  
**Prerequisite:** GRMN 2002 or consent of instructor. Continued study of the major difficulties of German grammar with practice in compositions.
- GRMN 3540 German Popular Literature** 3-0-3  
**Prerequisite:** GRMN 3310 or consent of the instructor. Study of lyrical forms, such as the ballads and poems of selected major authors and the lyrics of the common people over several centuries. A study of prose forms of popular literature, such as fairy tales and contemporary children's books.
- GRMN 3551 German Culture and Civilization I** 3-0-3  
**Prerequisite:** GRMN 3310 or 3320 or consent of the instructor. Study of geography, history, and educational and political systems in Germany, with attention given to music, art, and letters.
- GRMN 3552 German Culture and Civilization II** 3-0-3  
**Prerequisite:** GRMN 3310 or 3320 or consent of the instructor. Study of current issues in Germany. Selected readings and discussion from the German press, radio and TV, and literary texts.

- GRMN 3560 Survey of German Poetry** 3-0-3  
**Prerequisite:** GRMN 3310 or consent of the instructor. Study of representative poetry over the centuries with the focus on the development of content and form.
- GRMN 3570 Survey of Eighteenth- and Nineteenth-Century German Theater** 3-0-3  
**Prerequisite:** GRMN 3310 or consent of the instructor. Study of selected plays in their entirety with emphasis on the social changes in German society.
- GRMN 3580 Contemporary Works in German-Language Literature** 3-0-3  
**Prerequisite:** GRMN 3310 or consent of the instructor. Study of selected works in their entirety with emphasis on current social concerns in the German-speaking world.
- GRMN 4410 Advanced Conversation** 3-0-3  
**Prerequisite:** GRMN 2002 or consent of instructor. Intensive approach to spoken German based on everyday activities and occurrences.
- GRMN 4420 Questions of Gender in German-Language Texts** 3-0-3  
**Prerequisite:** GRMN 3310 or consent of the instructor. Study of the works of women authors in the German-speaking world and of the treatment of gender in other texts.
- GRMN 4950 Directed Study** 3-0-3  
**Prerequisite:** GRMN 3310 or consent of the instructor. Study in a special area of German literature or the German language not normally found in established courses offered by the department. The work is done under the supervision of a professor.
- GRMN 4960 Study Abroad Special Topics** 3-0-3  
 Consult the Department of Modern and Classical Languages regarding arrangements, requirements, and credit. May be repeated for a maximum of 9 hours if topics are different.

## HIST: HISTORY

- HIST 1011 History of Civilization I** 3-0-3  
 Survey of the development of major world civilizations from antiquity through the fourteenth century. Emphasis will be placed on the cultural achievements of each civilization.
- HIST 1011H Honors History of Civilization I** 3-0-3  
 Survey of world civilizations from antiquity through the fourteenth century. Emphasis will be placed on the cultural achievements of each civilization; taught in an enriched environment.
- HIST 1012 History of Civilization II** 3-0-3  
 Survey of early modern world civilizations from the fifteenth through the eighteenth century. Emphasis will be placed on the growing interactions of world cultures.