GEOGRAPHY • GEOG

General education courses are marked with stars (★).

CORE CURRICULUM
(Required of majors.)

★ 1001 Human Geography: Americas and Europe (3) 1001 and 1003 need not be taken in numerical order. Credit will not be given for this course and GEOG 2062. Principal themes of human geography, including the spatial distributions and interactions of culture, history, economy, population, and environment, with a regional emphasis on the Americas and Europe.

★ 1003 Human Geography: Africa and Asia (3) 1001 and 1003 need not be taken in numerical order. Credit will not be given for this course and GEOG 2062. Principal themes of human geography, including the spatial distributions and interactions of culture, history, economy, population, and environment, with a regional emphasis on Africa and Asia.

★ 2050 Physical Geography: The Atmosphere (3) Credit will not be given for both this course and GEOG 2061. May be taken for elective geology credit. Physical principles, processes, and operations in the atmosphere; world climatic realms.

★ 2051 Physical Geography: Land and Water Surfaces, Plant and Animal Realms (3) Credit will not be given for both this course and GEOG 2061. Surface elements of the earth's environment; relationships among these elements.

2055 Map Reading (3) 2 hrs. lecture; 2 hrs. lab. Nature and interpretation of topographic maps.

3999 Senior Proseminar (1) For geography majors in the senior year. Relationship of the subfields of geography to the overall objectives of the field.

MAPPING SCIENCES
(All majors select three courses.)

Cartography

2039 Cartographic Drafting and Graphic Presentation (3) 2 hrs. lecture; 2 hrs. lab. Basic drafting instruments and techniques necessary for preparation of maps and scientific graphics.

4040 Advanced Cartography (3) Prereq.: GEOG 2039 or equivalent. Cartographic history; map projection; advanced techniques of data presentation and cartographic production.

4043 Computer Cartography: Main-Frame (3) No programming knowledge necessary. Introduction to selected mapping packages.

4044 Computer Cartography (3) No programming knowledge necessary. Introduction to selected mapping packages.

4049 Advanced Computer Cartography (3) Prereq.: CSC 1250 or 1253 and GEOG 4044. Use of computer mapping programs; theory and methods of display of point, line, and area elements in thematic maps; algorithms involved in encoding, editing, storing, retrieving, and displaying data from a digital cartographic data base.

Remote Sensing

4019 Aerial Photo Interpretation of Cultural Features (3) 2 hrs. lecture; 2 hrs. lab. Credit will not be given for both this course and GEOG 4020. Analysis of land use/land cover, urban, industrial, and military aspects from aerial photographs.

4020 Aerial Photo Interpretation (3) Prereq.: GEOL 1001 and 1003 or GEOG 2051. Credit will not be given for both this course and GEOG 4019. 2 hrs. lecture; 2 hrs. lab. Analysis and mapping of geologic structure, lithology, and landforms from aerial photographs.

4045 Environmental Remote Sensing (3) Prereq.: consent of instructor. May be taken for elective geology credit. 2 hrs. lecture; 2 hrs. lab. Basic energy and matter relationships; principles of primary remote sensors; environment studied via remote sensing techniques.

GIS/Techniques

4041 Field Methods in Geography (3) 1 hr. lecture; 4 hrs. lab. Cannot be repeated for credit. Students must have Saturdays free. Fall semester emphasis on interpretation of the cultural landscape; spring semester emphasis on the physical landscape.

4047 Geographic Information Systems (3) Prereq.: CSC 1250 or 1253 or equivalent. Geographic information systems used in land resource management and planning; data structures and algorithms for automated retrieval and analysis of spatial data; structuring cartographic data into spatial data; integration of remotely sensed data into geographic information systems.

4048 Methods of Spatial Analysis (3) Prereq.: EXST 4001 or equivalent. Mathematical, statistical, and spatial analytical methods for handling and interpreting data related to geography.

HUMAN GEOGRAPHY
(B.A. candidates select two systematic and one regional course.)

Systematic

4012 Elements of Cultural Geography (3) Culturally oriented proseminar in American geographical thought during the present century.

4060 Political Geography (3) Systematic, cultural-political geography; emphasis on technical and philosophical aspects and on American political landscapes; territorial political entities (cadastral, civil, national, imperial); role of the lands and seas, nature and objects of war; impacts of political entities on the landscape.

4072 Urban Historical Geography (3) Spatial evolution of cities and city-systems in western civilization through the classical, medieval, mercantile, and industrial periods to 1945.

4073 Urban Geography (3) Internal arrangement, external relations, and locational aspects of urban places, with emphasis on U.S.; urban places identified by presence of tertiary economic activities.

4074 Place and Culture (3) See ANTH 4074.

4077 Economic Geography (3) Location, characteristics, and relationships of primary, secondary, and tertiary economic activity; measurements and theories of location of economic endeavor.

4078 Environment and Development in Developing Countries (3) Geographic theories and methods for analyzing environment and development in developing countries.

4080 Environmental Historical Geography (3) Human-environment interaction from a historical geographic perspective; human agency in altering the environment and managing resources, and social response to environmental hazards.

4086 Cultural Ecology (3) Also offered as ANTH 4086. Cultural adaptation to difficult and distinctive environments, including mountains and highlands, the arctic, deserts, the humid tropics, and grasslands; subsistence strategies, local knowledge, household economies, land use practices, and resource management institutions.
Regional

4000 Modern India: Society and Culture (3) See SW 4000.
4001 Geography of Louisiana (3) Natural and cultural elements and regions.
4002 South Asian Society, Polity, and Culture (3) See INTL 4002.
4026 The Mountain World (3) Mountain regions and peoples from the Himalaya, Andes, and Alps to the Sierra Nevada and Rocky Mountains; mountain cultures, economies; current development and conservation issues.
4031 Spanish America (3) Physical and cultural geography of Mexico, Central America, and Spanish South America.
4032 Brazil and the Caribbean Area (3) Physical and cultural geography of Brazil, the Guianas, and the Caribbean Islands.
4035 Geographical Survey of East Asia (3) General survey of the physical and cultural geography of the region; focus on economic development and international relations.
4050 Historical Geography of the South (3) Physical and cultural geography of the southern U.S.; emphasis on geographical elements identified with the south and their historical development; environment, exploration, population, agriculture, and cultural landscape.
4052 Anglo-America (3) Credit will not be given for both this course and GEOG 2052. Physical and cultural geography of Anglo-America.
4055 Geography of Europe (3) Geographical survey of the natural, cultural, and economic resources of Europe and their relationships to the rest of the world.

PHYSICAL GEOGRAPHY
(B.S. candidates select any three courses.)

Climatology

4013 Meteorology (3) May be taken for elective geology credit. Temporal and areal variations in composition and structure of the atmosphere; meteorological instruments and measurements.
4014 Climatology (3) Climatic phenomena; methods in development of regional climatology.
4015 Microclimate (3) Prereq.: GEOG 4013 or 4014 or equivalent. May be taken for elective geology credit. Exchanges of radiation, energy, and moisture between the earth's surface and the atmosphere producing characteristic environmental conditions near the ground important to both rural and urban land uses.
4016 Methods of Climatological Analysis (2) Prereq.: GEOG 4013 and 4014; or equivalent. 1 hr. lecture; 2 hrs. lab. Analysis and interpretation of climatological data and application to physical and human problems.
4017 World Climates (3) Prereq.: GEOG 2050 or equivalent. Analysis of atmospheric circulation processes that produce differences in climates throughout the world; the earth's problem climates and climatically sensitive zones most susceptible to floods, droughts, and other environmental stresses.
4018 Geographical Hydrology (3) Prereq.: MATH 1021 or equivalent. 2 hrs. lecture; 2 hrs. lab. Analysis of basic hydrologic processes with geographical perspective; variability of runoff and groundwater; floods and droughts; climatic and land use impacts on local and global water resources.

Geomorphology and Coastal

4021 Alluvial Morphology (3) Prereq.: GEOL 1001, 1003. May be taken for elective geology credit. Processes that originate and change land and hydrographic forms of alluvial surfaces; emphasis on Louisiana.
4022 Geomorphology (3) Prereq.: GEOL 1001, 1003. May be taken for elective geology credit. Basic principles underlying the study of land forms; emphasis on processes shaping the natural landscape.
4024 Coastal Morphodynamics (3) Prereq.: MATH 1021, 1022, or 1023. See OCS 4024.
4028 The Ocean World (3) May be taken for elective geology credit. Physical geography of the world's oceans; geological and biological aspects of oceanography; ocean-atmosphere interactions; geomorphology and ecology of oceanic islands.
4029 Coastal Resources and Management (3) Introduction to coastal environments and contemporary global coastal and estuarine management.

Biogeography and Environment

4070 Environmental Conservation (3) Factors governing human use of the earth and its resources.
4082 Biogeography (3) Different approaches to description and interpretation of plant and soil distribution patterns.
4083 Quaternary Paleocology (3) Prereq.: GEOL 4082 and a basic course in historical geology, or equivalent. 2 hrs. lecture; 4 hrs. lab. Also offered as ANTH 4083. Theory and method of reconstructing climatic, biological, geological, and human history during the Pleistocene and Holocene periods.
4084 Tropical and Subtropical Biogeography (3) Prereq.: GEOL 4082 or equivalent. Includes field trip during spring vacation. Principles of tropical ecology and biogeography taught as preparation for an expedition to tropical America where field methods will be illustrated and ecological diversity studied.

OTHER COURSES

2061 Physical Geography (3) Either GEOG 2050 or 2051 may be substituted for this course. Credit will not be given for both this course and GEOG 2050 or 2051. Analysis of landforms, hydrology, climate, vegetation, and soil; emphasis on world regional patterns.
2062 Cultural Geography (3) The only substitute for this course is satisfactory completion of both GEOG 1001 and 1003. Credit will not be given for both this course and GEOG 1001 or 1003. Nations of the world, integrated into regional patterns.
3065 Practical Geography of Petroleum Resources (3) Geographic aspects of petroleum resources; land and mineral ownership; compilation and application of maps, air photos, archives, surveys, and field work; unitization, site analysis, and impact; emphasis on Louisiana and Gulf Coast.
4023 Coastal and Shallow-Marine Depositional Systems (3) See GEOL 4023. May be taken for elective geology credit.
4090 The History of Geography (3) 3 hrs. lecture and proseminar discussion. Development of geography since ancient times; emphasis on the 19th and 20th centuries.
4164 Deltaic Geology (3) See GEOL 4164.
4997 Special Topics in Geography (3) May be taken for a max. of 6 sem. hrs. of credit when topics vary.
4998 Independent Reading and Research in Geography (1-6) May be repeated for credit. An honors course, GEOG 4998, is also available. Supervised reading or research on topics selected by qualified advanced students.
4999 HONORS: Independent Reading and Research in Geography (1-6) Same as GEOG 4998, with special honors emphasis for qualified students.
7074 Poetics of Place (3) Same as ANTH 7074.
7901 Introduction to Graduate Study (1) Same as ANTH 7901. Techniques and methods of their profession for incoming graduate students.
7902 Introduction to Research Methods in Geography (3)
7906 Settlement Geography: Exploration (3) May be taken for a max. of 9 hrs. of credit with consent of department.
7910 Flows-Process Relationships in Coastal Environments (3) V
7911 Selected Topics in Geography (3) May be taken for a max. of 9 sem. hrs. when topics vary.
7917 Advanced Physical Geography (3) May be taken for a max. of 9 hrs. of credit with consent of department.
7921, 7922, 7923 Field Work in Geography (3-6 each) Each course may be repeated for credit.
7926 Advanced Geomorphology (3) May be taken for a max. of 9 hrs. of credit with consent of department.
7935 Quantitative Methods for Geographical Analysis (3) Prereq.: EXST 7003 or equivalent. Spatial analytical methods for handling and interpreting data related to geography.

7937 Geographical Literature (3)

7938 Culture History (3) May be taken for a max. of 9 hrs. of credit with consent of department.

7941 Coastal Ecology (3) Prereq.: GEOG 4028 or equivalent. 2 hrs. lecture; 2 hrs. lab. All students must have weekends free.

7942 Coastal Climatology (3) Prereq.: GEOG 4028 and a basic course in either meteorology or climatology, or consent of instructor. Meteorologic and climatologic phenomena occurring in coastal areas.

7946 Coastal and Estuarine Resources (3) Prereq.: GEOG 4028 and 4029; or equivalent. Nature of coastal and estuarine resources and their perception, evaluation, and exploitation.

7950 Problems in the Geography of Latin America (3) Prereq.: reading knowledge of Spanish or Portuguese. Problems in the cultural and economic geography of Latin America.

7960 Hydroclimatology (3) Prereq.: GEOG 4014 or 4015 or equivalent. 1 hr. lecture; 4 hrs. lab. Field measurements and laboratory analyses of radiation and water budgets in rural and urban environments; emphasis on evapotranspiration rates and climatic consequences.

7973 Advanced Geographic Information Systems (3) Prereq.: GEOG 4047 or equivalent. Theory and methods of design, development, implementation, and applications of geographic information systems.

7975 Advanced Remote Sensing Seminar (3) Prereq.: GEOG 4045 or equivalent. May be taken for a max. of 9 sem. hrs. of credit when topics vary. Selected topics in remote sensing.

8000 Thesis Research (1-12 per sem.) “S”/”U” grading.

9000 Dissertation Research (1-12 per sem.) “S”/”U” grading.