



Geography - B.S.

College of
Arts and Sciences

Geography analyzes and explains the location of and interrelationships between human and physical features of the earth's environment. Geographers also examine how and why features and their locations change over time, with particular interest in the many impacts of these changes on both people and natural settings. Geography is, therefore, both a social and a physical science. Because its fundamental subject matter is people and their environments, the discipline serves as an effective bridge between the physical and cultural worlds.

Majors in geography build solid academic foundations that draw from and interrelate areas of study from the social and behavioral sciences, humanities, computer science and graphic communication, and the natural sciences. With developed analytical, critical thinking, and communication skills, geography is particularly useful for students wishing to enter such careers as economic development, environmental management, international trade, transportation analysis and planning, diplomacy, government administration from local to federal levels, market analysis, urban and regional planning, research, teaching, cartography, Geographic Information Systems (GIS), and private business.

120 hours (minimum)

Any student earning a Bachelor of Science (BS) degree must complete a minimum of 60 hours in natural, physical, mathematical, and computer science. Please note: courses with a GEO prefix are generally not accepted towards fulfilling this 60-hour requirement. Therefore, be sure to keep this requirement in mind as you choose your course work for the requirements in the major. A complete description of College requirements for a Bachelor of Science degree, including a specific listing of courses applicable to the 60-hour requirement, can be found on pages 103-104 of the 2007-2008 UK Bulletin.

University Studies Program Requirements

- I. Math 0-3
- II. Foreign Language (*placement exam recommended*) 0-8
- III. Inference-Logic 3-6
- IV. Written Communication 0-4
- V. Oral Communication 3
- VI. Natural Sciences (*partially completed by Premajor Requirement*) 3
- VII. Social Sciences (*partially completed by Premajor Requirement*) 3
- VIII. Humanities 6
- IX. Cross-Cultural 3
- X. Electives (*choose a Natural Science and a Humanities course*) 6

USP hours: 24-42

Graduation Writing Requirement

Graduation Writing Requirement

Students satisfy the Graduation Writing Requirement with GEO 300, required in the Major Requirements.

Graduation Writing Requirement Hours: 3

College Requirements

- I. Foreign Language (*placement exam recommended*) 0-8
- II. Disciplinary Requirements
 - a. Natural Science (*completed by USP Elective Requirement*)
 - b. Social Science (*completed by Major Requirement*)
 - c. Humanities (*completed by USP Elective Requirement*)
- III. Laboratory or Field Work 1
- IV. Electives 6

College Requirement hours: 7-15

Premajor Requirements

- ^GEO 130 Earth's Physical Environment 3
- ^GEO 172 Human Geography 3

Premajor hours: 6

^Course may be used towards fulfilling the University Studies Program requirements.

Major Requirements

Major Core Requirements

- GEO 200 Concepts and Methodology in Geography 3
- GEO 300 Geographic Research 3
- GEO 305 Elements of Cartography 3
- GEO 310 Quantitative Techniques in Geography 3
- GEO 499 Senior Research Seminar 3

Major Core hours: 15

Other Course Work Required for the Major

From the Major Department:

- Breadth Requirements 6
- Choose one regional geography course and one thematic geography course at the 300+ level

Geography Concentration Tracks 12

Choose at least 12 hours of geography courses to include no more than 6 hours of GEO 560 (Independent Work in Geography) and GEO 480 (Internship in Geography) from one of the following tracks.

NOTE: Courses listed are examples and additional courses can be substituted with permission of advisor.

Track 1: Earth Environmental Systems (Physical Geography)

This concentration emphasizes the earth's physical environment, including soils and landscapes; fluvial and other hydrologic systems; weather and climate; and vegetation and animal life. Emphasis is on (a) the pattern of spatial variation these regimes exhibit; (b) the physical processes that underpin their historical and spatial development; and (c) the interactions between these regimes and human activity. Topical areas reflecting physical-human interactions include identification and analysis of pollution, mitigation of natural hazards, and the outcomes of environmental management strategies.

Geography (B.S.) • 2

*GEO 210 Pollution, Hazards and Environmental Management	3
GEO 251 Weather and Climate	3
GEO 351 Physical Landscapes	3
*GEO 441G Fluvial Forms and Processes	3

**Or other Physical Geography, GIS, Remote Sensing, Computer Cartography courses.*

Track 2: Human Geography (HG)

Human Geography focuses on the identification, description, and analysis of: (a) human spatial behavior and cognition; (b) social, economic, and political processes as they are manifest locally and globally; and (c) the cultural impress of human activity on the landscape. Within these areas, students can focus on the socio-psychological aspects of space and place, including cultural differences in ways of knowing the world. They will learn about the processes that produce local-to-global distinctiveness in key problem areas including: poverty, injustice, and hunger; illness, disability, and disease; patriarchy, racism, and homophobia; and unequal access to natural resources, education, health, and safety. Students will also find an opportunity to learn how human practices and broader processes affect both our natural and built environments. Finally, students will learn practical tools to contribute to better world through their research, or professional participation in civil society, the private sector, or government agencies. The HG Track permits students to specialize in a particular region of interest, including East, South, Southwest (Middle East), and Southeast Asia, Europe, the Caribbean, and the United States, especially Appalachia and the South.

With the advice and consent of a faculty advisor, select from courses offered within the Department and other Departments, corresponding to a particular focus in HG.

^GEO 240 Geography and Gender	3
GEO 256 Behavior in Space and Time	3
GEO 260 Third World Development	3
GEO 285 Introduction to Planning	3
GEO 409G Geographic Information Systems and Science: Fundamentals	3
GEO 455 Economic Geography	3

GEO 460 Urban Geography	3
GEO 465 Special Topics in Human Geography	3
GEO 475G Medical Geography	3
GEO 490G American Landscapes	3
GEO 542 Political Geography	3
GEO 544 Human Population Dynamics	3
GEO 545 Transportation Geography	3
GEO 546 Tourism and Recreation Geography	3
GEO 547 Geography of Information and Communications	3
GEO 550 Sustainable Resource Development and Environmental Management	3
GEO 585 Aging and Environment	3

^Course may be used towards fulfilling the University Studies Program requirements.

Track 3: Geographic Information Techniques (GIT)

The Geographic Information Techniques Concentration is concerned with all aspects of geographical information/data, including identification of data sources, collection, storage/retrieval, manipulation, analysis, and visualization. The GIT Concentration encompasses geographical information science (GIS), cartography, remote sensing, and spatial analysis.

GEO 309 Digital Geographic Data: Sources, Characteristics, Problems, and Uses	3
GEO 409G Geographic Information Systems and Science: Fundamentals	3
GEO 415 Map Interpretation	3
GEO 480 Internship in Geography	3
GEO 505 Practicum in Cartography	3
GEO 506 Introduction to Computer Cartography	3
GEO 508 Geographic Interpretation of Aerial Photography	3

From Outside the Major Department

Choose 15 hours outside Geography at the 200+ level. Courses used to satisfy USP and College Requirements can also be counted here 15

Major hours: **48**

Electives

Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation 10

Total Minimum Hours Required for Degree **120**

^Course used towards completion of a USP Requirement.