

BACHELOR OF SCIENCE

Geography is the science of place, space, and environment. Each place on earth is distinguished by a unique mix of natural resources, cultural practices, and socioeconomic and political systems. Geographers study what makes each place unique, as well as the connections and interactions between places.

About this Program

- **College:** Liberal Arts and Sciences (<http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/>)
- **Degrees:** Bachelor of Arts (http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/GPY_BA_BS/GPY_BA/) | B.A.: Environmental Geosciences (http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/GPY_BA_BS/GPY_BA01/) | Bachelor of Science (p. 1) | B.A.: Medical Geography in Global Health (http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/GPY_BA_BS/GPY_BA02/) | B.S.: Medical Geography in Global Health (http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/GPY_BA_BS/GPY_BS01/)
- **Credits for Degree:** 120
- **Contact:** Email (liangmao@ufl.edu)
- **More Info**

To graduate with this major, students must complete all university, college, and major requirements.

Department Information

The Geography Department offers a range of topics in contemporary geography and geospatial science, rich and lively cultural and learning environments, B.A. and B.S. undergraduate degrees, M.A., M.S., and PhD degrees, as well as the largest Medical Geography program in the United States.

Website (<https://geog.ufl.edu/>)

CONTACT

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Map (<http://campusmap.ufl.edu/#/index/0267>)

Curriculum

- Combination Degrees
- Geography
- Geography Minor
- Geography Minor UF Online
- Geography UF Online
- Geospatial Information Analysis Certificate
- Medical Geography Certificate
- Medical Geography in Global Health Minor
- Meteorology and Climatology Certificate

Geography offers exciting undergraduate degrees at UF. Students learn from world-renowned faculty and award-winning mentors, and contribute to groundbreaking research, all while studying topics that have great environmental and social significance. Geography is an integrated and highly interdisciplinary field of study spanning the physical world

and society. It is also a hands-on discipline, with a strong emphasis on computer-based tools and field studies.

Geographers can choose to study an enormous range of subjects, essentially anything that has a spatial component. Students who major in geography use the lens of space to examine issues as diverse as climate variability and change on the African continent, malaria outbreaks in Africa and South America, deforestation and land conflict in the Amazon, and the origin and spread of blues music in the Southeastern United States. Across the globe, geographers study tropical cyclones, river restoration, disease outbreaks, the role of parks and other protected areas, changes in land cover, forest management and fragmentation, community conservation, emerging infectious diseases, environmental influences on the elderly, and economic development.

Geography explores the relationship between human and biophysical systems and deals with some of the most critical issues of our time such as environmental hazards, climate change, sustainability of resource management systems, international development, and community and urban planning. Understanding the concept of place, including how and why places differ from each other, is a central concern. Students who have social and economic interests can enter into careers in international development, urban and regional planning, geographic information systems, and environmental consultancy. Students who combine the study of socioeconomic factors and the biophysical world can work in resource management, conservation, environmental assessment, and watershed and coastal planning.

Coursework for the Major

The geography major has five different programs: the Bachelor of Arts, the Bachelor of Science, the Bachelor of Arts in environmental geosciences (a joint program with the Department of Geological Sciences), the Bachelor of Arts in medical geography in global health, and the Bachelor of Science in medical geography in global health. Coursework for the major will depend upon the program, which are all flexible. Students must earn a minimum grade of C in all coursework for the major.

Students who are uncertain of a program should contact the Department of Geography's undergraduate coordinator for information and curriculum planning.

Required Coursework

All majors take some techniques courses, including GEO 3162C and a minimum of two additional courses that involve working with data and computers. All majors take a regional course, focusing on the countries, cultures and landscapes of one region in the world. The systematic courses include specialized courses in human or environmental/physical geography, but majors can also take additional techniques courses as part of this requirement. Students can concentrate coursework in economic geography and planning, environmental/physical geography, geospatial technologies, medical geography, or natural resource management.

Coursework for the major will depend upon the degree program. Courses for each program are listed below under Critical Tracking and Model Semester Plan.

Bachelor of Arts in Geography

Best suited for students interested in careers in urban and regional planning, business geography, medical geography, and geographic

education, or for students who want a broad overview of the discipline with a focus on human geography.

Bachelor of Arts in Environmental Geosciences

A joint program between the Department of Geography and the Department of Geological Sciences and is intended for students interested in land and water aspects of the environment. The degree focuses on human impacts, water and mineral resource exploitation and management, disasters, environmental planning, earth science education, or environmental law.

Bachelor of Science in Geography

Best suited for someone who wishes to pursue a career in environmental consulting or graduate work in physical geography or related natural sciences, including atmospheric science, geosciences, hydrologic sciences, or meteorology.

Bachelor of Arts in Medical Geography in Global Health

Intended for students interested in social and cultural aspects of medical geography and global health and disease issues. The degree focuses on human impacts, cultural and social aspects of health and disease, and public health planning and management.

Bachelor of Science in Medical Geography in Global Health

Best suited for someone who wishes to pursue a career in public or animal health or disease management or graduate work in medical geography, public health or related natural sciences, including ecology, biology, or epidemiology/public health. This specialization offers the flexibility for students to prepare for admission to health professions programs.

Bachelor of Science in Geography

The Bachelor of Science in geography requires 30-32 credits of geography coursework and 24-25 credits of related coursework in physics, chemistry, geology, and soil science. Students must earn a minimum grade of C in all coursework for the major.

Required Coursework

Code	Title	Credits
GEO 2200 & 2200L	Physical Geography and Physical Geography Laboratory	4
GEO 3162C	Introduction to Quantitative Analysis for Geographers	4
GEO 4930	Senior Seminar	1
Select one:		3
GEO 2410	Social Geography	
GEO 2420	Introduction to Human Geography	
GEO 2500	Global and Regional Economies	
Select two technique courses:		6-8
GEO 4167C	Intermediate Quantitative Analysis for Geographers	
GIS 3001C	Spatial Maps and Graphs	
GIS 3043	Foundations of Geographic Information Systems	
GIS 4021C	Aerial Photo Interpretation	
GIS 4037	Digital Image Processing	
GIS 4113	Introduction to Spatial Networks	
GIS 4115	Applied Geostats	
Select one regional geography course:		3
GEA 2270	Geography of Florida	
GEA 3405	Geography of Latin America	

GEA 3500	Geography of Europe	
GEA 3600	Geography of Africa	
GEA 4465	Amazonia	
Select three:		9-12
GEO 3250	Climatology	
GEO 3280	Principles of Geographic Hydrology	
GEO 3315	Geography of Crop Plants	
GEO 3341	Extreme Floods	
GEO 3352	The Human Footprint on Landscape	
GEO 3372	Conservation of Resources	
GEO 3452	Introduction to Medical Geography	
GEO 4167C	Intermediate Quantitative Analysis for Geographers	
GEO 4281	River Forms and Processes	
GEO 4285	Models in Geographic Hydrology	
GEO 4938	Selected Topics in Geography	
GEO 4970	Honors Thesis	
GIS 3043	Foundations of Geographic Information Systems	
GIS 3420C	GIS Models for Public Health	
GIS 4021C	Aerial Photo Interpretation	
GIS 4037	Digital Image Processing	
GIS 4113	Introduction to Spatial Networks	
GIS 4115	Applied Geostats	
MET 3503	Weather and Forecasting	
MET 4532	Hurricanes	
MET 4560	Atmospheric Teleconnections	
MET 4750	Spatial Analysis of Atmospheric Data using GIS	
Total Credits		30-35

The same course may **not** be used to satisfy requirements for more than one bulleted group.

Transfer coursework is considered on a case-by-case basis. Upper division transfer courses with no UF equivalent will be substituted as GEO 4938.

Related Coursework

Code	Title	Credits
CHM 1025 or CHM 1030	Introduction to Chemistry Basic Chemistry Concepts and Applications 1	2-3
GLY 2010C	Physical Geology	4
MET 1010	Introduction to Weather and Climate	3
PHY 2004 & 2004L	Applied Physics 1 and Laboratory for Applied Physics 1	4
PHY 2005 & 2005L	Applied Physics 2 and Laboratory for Applied Physics 2	4
STA 2023	Introduction to Statistics 1	3
SWS 3022 & 3022L	Introduction to Soils in the Environment and Introduction to Soils in the Environment Laboratory	4
Total Credits		24-25

Critical Tracking

Critical Tracking records each student's progress in courses that are required for progress toward each major. Please note the critical-tracking requirements below on a per-semester basis.

For degree requirements outside of the major, refer to CLAS Degree Requirements: Structure of a CLAS Degree.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites (<http://www.flvc.org/cpp/displayRecord.jsp?cip=450701&track=01>) may be used for transfer students.

Semester 1

- 2.0 UF GPA required

Semester 2

- 2.0 UF GPA required

Semester 3

- Complete 1 geography course (GEA 1000 not acceptable)
- 2.0 UF GPA required

Semester 4

- Complete 1 additional geography course (1 of the 2 must be GEO 2200; GEA 1000 not acceptable) or complete STA 2023 with a 2.5 critical-tracking GPA
- 2.0 UF GPA required

Semester 5

- Complete all critical-tracking courses (STA 2023 and 2 geography courses, 1 of which must be GEO 2200; GEA 1000 not acceptable) with a 2.5 critical-tracking GPA
- 2.0 UF GPA required

Semester 6

- Complete a GIS 3000/4000 technique course.
- 2.0 UF GPA required

Semester 7

- Complete 1 geography (GEO, GIS, or MET) 3000/4000 systematic course
- 2.0 UF GPA required

Semester 8

- Complete all remaining geography (GEO or GIS) 3000/4000 courses
- 2.0 UF GPA required

Model Semester Plan

Students are expected to complete the writing requirement while in the process of taking the courses below. Students are also expected to complete the general education international (GE-N) and diversity (GE-D) requirements concurrently with another general education requirement (typically, GE-C, H, or S).

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student's academic record and scheduling availability of courses. Prerequisites still apply.

Course	Title	Credits
Semester One		
GEO 2200	Physical Geography (Critical Tracking ; Gen Ed Physical Sciences)	3
GEO 2200L	Physical Geography Laboratory (Gen Ed Physical Sciences)	1
MET 1010	Introduction to Weather and Climate (Gen Ed Physical Sciences)	3
State Core Gen Ed Composition (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext); Writing Requirement		3
Foreign language		5
Credits		15
Semester Two		
Select one:		2-3
CHM 1025	Introduction to Chemistry (Gen Ed Physical Sciences)	
CHM 1030	Basic Chemistry Concepts and Applications 1 (Gen Ed Physical Sciences)	
Select one:		3
GEO 2410	Social Geography (Critical Tracking ; Gen Ed Social and Behavioral Sciences and Diversity)	
GEO 2420	Introduction to Human Geography (Critical Tracking ; Gen Ed Social and Behavioral Sciences and International)	
GEO 2500	Global and Regional Economies (Critical Tracking ; Gen Ed Social and Behavioral Sciences)	
Quest 1 (Gen Ed Humanities)		3
Foreign language		5
Credits		13-14
Semester Three		
PHY 2004 & 2004L	Applied Physics 1 and Laboratory for Applied Physics 1 (Gen Ed Physical Sciences)	4
STA 2023	Introduction to Statistics 1 (Critical Tracking ; Gen Ed Mathematics)	3
Elective		3
State Core Gen Ed Humanities (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
Credits		13
Semester Four		
Systematic GEO/MET course (3000/4000 level)		3
PHY 2005 & 2005L	Applied Physics 2 and Laboratory for Applied Physics 2 (Gen Ed Physical Sciences)	4
Gen Ed Composition; Writing Requirement		3
Elective		3
State Core Gen Ed Mathematics, pure math (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
Credits		16
Semester Five		
Regional GEA course (2000 - 4000 level)		3
GEO 3162C	Introduction to Quantitative Analysis for Geographers (Gen Ed Physical Sciences)	4
State Core Gen Ed Biological Sciences (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
Elective (3000 level or above, not in major)		3

State Core Gen Ed Social and Behavioral Sciences (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)	3
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Credits 16

Semester Six

Systematic GEO/MET course (3000/4000 level)	3-4
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Select one: 4

GIS 3001C Spatial Maps and Graphs (Critical Tracking)	
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GIS 3043 Foundations of Geographic Information Systems (technique; Critical Tracking)	
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GLY 2010C Physical Geology (Gen Ed Physical Sciences)	4
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Elective (3000 level or above, not in major) 3

Gen Ed Humanities 3

Credits 17-18

Semester Seven

GEO 4930 Senior Seminar	1
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Systematic GEO/MET course (Critical Tracking ; 3000/4000 level)	3
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SWS 3022 Introduction to Soils in the Environment	4
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& 3022L and Introduction to Soils in the Environment Laboratory (Gen Ed Physical Sciences)	
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Elective 1

Electives (3000 level or above, not in major) 6

Credits 15

Semester Eight

Technique GEO/GIS course (Critical Tracking ; 3000 level or above)	3-4
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Gen Ed Biological Sciences 3

Gen Ed Social and Behavioral Sciences (if needed) 3

Electives (3000 level or above, not in major) 6

Credits 15-16

Total Credits 120

Electives to reach the 120-credit minimum will vary depending on whether students select minimum or maximum credit course options.

Academic Learning Compact

A major in geography enables students to know the earth's physical environment, to learn social, cultural and economic concepts from spatial and regional perspectives, and to understand the relationship between environment and society. Students will learn how geographic techniques, skills and concepts are applied in the subfields of geography. Computer-based lab assignments teach students how to analyze geographic information and to apply an interpretation of data toward problem solving or modeling. They will be able to interpret and to effectively communicate information spatially, graphically and/or with statistics.

The Bachelor of Arts in geography enables students to learn how geographic techniques, skills and concepts are applied in various subfields of geography. The Bachelor of Science enables students to learn basic concepts in sciences related to the earth and its atmosphere.

Before Graduating Students Must

- Complete a capstone exam in GEO 4930, as developed by geography faculty.
- Complete a capstone portfolio in GEO 4930, evaluated by geography faculty.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to Student Learning Outcomes (SLOs)

Content

1. Identify and describe the physical and human characteristics of Earth and its regions, the essentials of human#environment interactions, and the techniques of geographic science.

Critical Thinking

2. Analyze geographic information and apply interpretation of data toward problem solving or modeling.

Communication

3. Interpret and effectively communicate information spatially, graphically and/or with statistics.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

Courses	SLO 1	SLO 2	SLO 3
GEA 2000-4000 level Regional Geography	R		
GEO 2000 level Human Geography	I		
GEO 2200	I		
GEO 2200L	R		
GEO 3162C	I	I	R
GEO 4930	R, A	A	A
GIS 3043 and GIS 4001C	R	R	R
STA 2023			I
B.A. Only Plus 15 additional credits in the department	R	R	R
B.S. Only Plus 12 additional credits in the department and 22 credits outside the department with CHM, GLY, MET, PHY, SWS prefixes	R	R	R

Assessment Types

- Capstone exam
- Portfolio