GEOGRAPHY | BS

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
- **Degrees**: Bachelor of Arts | B.A.: Environmental Geosciences | Bachelor of Science | B.A.: Medical Geography in Global Health | B.S.: Medical Geography in Global Health
- **Credits for Degree**: 120
- **Additional Information**
- **Contact**: Email

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

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.

The **Bachelor of Arts in geography** is 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.

The **Bachelor of Arts in environmental geosciences** is 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.

The **Bachelor of Science in geography** is 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.

The **Bachelor of Arts in medical geography in global health** is 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.

The **Bachelor of Science in medical geography in global health** is 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.

**Related Geography Programs**

- Combined Degree
- Bachelor of Arts in Geography, UF Online
- Geography minor
- Geography minor, UF Online
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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 2200 &amp; 2200L</td>
<td>Physical Geography and Physical Geography Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>GEO 3162C</td>
<td>Introduction to Quantitative Analysis for Geographers</td>
<td>4</td>
</tr>
<tr>
<td>GEO 4930</td>
<td>Senior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEO 2410</td>
<td>Social Geography</td>
<td></td>
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<tr>
<td>GEO 2420</td>
<td>Introduction to Human Geography</td>
<td></td>
</tr>
<tr>
<td>GEO 2500</td>
<td>Global and Regional Economies</td>
<td></td>
</tr>
<tr>
<td>Select two of the following technique courses:</td>
<td>6-8</td>
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</tr>
<tr>
<td>GEO 4167C</td>
<td>Intermediate Quantitative Analysis for Geographers</td>
<td></td>
</tr>
<tr>
<td>GIS 3043</td>
<td>Foundations of Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GIS 4001C</td>
<td>Maps and Graphs</td>
<td></td>
</tr>
<tr>
<td>GIS 4021C</td>
<td>Aerial Photo Interpretation</td>
<td></td>
</tr>
<tr>
<td>GIS 4037</td>
<td>Digital Image Processing</td>
<td></td>
</tr>
<tr>
<td>GIS 4113</td>
<td>Introduction to Spatial Networks</td>
<td></td>
</tr>
<tr>
<td>GIS 4115</td>
<td>Applied Geostats</td>
<td></td>
</tr>
<tr>
<td>Select one of the following regional geography courses:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEA 2270</td>
<td>Geography of Florida</td>
<td></td>
</tr>
<tr>
<td>GEA 3405</td>
<td>Geography of Latin America</td>
<td></td>
</tr>
<tr>
<td>GEA 3500</td>
<td>Geography of Europe</td>
<td></td>
</tr>
<tr>
<td>GEA 3600</td>
<td>Geography of Africa</td>
<td></td>
</tr>
<tr>
<td>GEA 4465</td>
<td>Amazonia</td>
<td></td>
</tr>
<tr>
<td>Select three of the following:</td>
<td>9-12</td>
<td></td>
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<tr>
<td>GEO 3250</td>
<td>Climatology</td>
<td></td>
</tr>
<tr>
<td>GEO 3280</td>
<td>Principles of Geographic Hydrology</td>
<td></td>
</tr>
<tr>
<td>GEO 3315</td>
<td>Geography of Crop Plants</td>
<td></td>
</tr>
<tr>
<td>GEO 3341</td>
<td>Extreme Floods</td>
<td></td>
</tr>
<tr>
<td>GEO 3352</td>
<td>The Human Footprint on Landscape</td>
<td></td>
</tr>
<tr>
<td>GEO 3372</td>
<td>Conservation of Resources</td>
<td></td>
</tr>
<tr>
<td>GEO 3452</td>
<td>Introduction to Medical Geography</td>
<td></td>
</tr>
<tr>
<td>GEO 4167C</td>
<td>Intermediate Quantitative Analysis for Geographers</td>
<td></td>
</tr>
<tr>
<td>GEO 4281</td>
<td>River Forms and Processes</td>
<td></td>
</tr>
<tr>
<td>GEO 4285</td>
<td>Models in Geographic Hydrology</td>
<td></td>
</tr>
<tr>
<td>GEO 4938</td>
<td>Selected Topics in Geography</td>
<td></td>
</tr>
<tr>
<td>GEO 4970</td>
<td>Honors Thesis</td>
<td></td>
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<tr>
<td>GIS 3043</td>
<td>Foundations of Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GIS 3420C</td>
<td>GIS Models for Public Health</td>
<td></td>
</tr>
<tr>
<td>GIS 4021C</td>
<td>Aerial Photo Interpretation</td>
<td></td>
</tr>
<tr>
<td>GIS 4037</td>
<td>Digital Image Processing</td>
<td></td>
</tr>
<tr>
<td>GIS 4113</td>
<td>Introduction to Spatial Networks</td>
<td></td>
</tr>
<tr>
<td>GIS 4115</td>
<td>Applied Geostats</td>
<td></td>
</tr>
<tr>
<td>MET 3503</td>
<td>Weather and Forecasting</td>
<td></td>
</tr>
<tr>
<td>MET 4532</td>
<td>Hurricanes</td>
<td></td>
</tr>
<tr>
<td>MET 4560</td>
<td>Atmospheric Teleconnections</td>
<td></td>
</tr>
<tr>
<td>MET 4750</td>
<td>Spatial Analysis of Atmospheric Data using GIS</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 1025 or CHM 1030</td>
<td>Introduction to Chemistry for Geographers</td>
<td>2-3</td>
</tr>
<tr>
<td>GLY 2010C</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>MET 1010</td>
<td>Introduction to Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2004 &amp; 2004L</td>
<td>Applied Physics 1 and Laboratory for Applied Physics 1</td>
<td>4</td>
</tr>
<tr>
<td>PHY 2005 &amp; 2005L</td>
<td>Applied Physics 2 and Laboratory for Applied Physics 2</td>
<td>4</td>
</tr>
<tr>
<td>STA 2023</td>
<td>Introduction to Statistics 1</td>
<td>3</td>
</tr>
<tr>
<td>SWS 3022 &amp; 3022L</td>
<td>Introduction to Soils in the Environment and Laboratory</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits: 24-25

Critical Tracking records each student's progress in courses that are required for entry to 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 may be used for transfer students.

Semester 1
- 2.0 UF GPA required

Semester 2
- Maintain 2.0 UF GPA
- 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

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.

<table>
<thead>
<tr>
<th>Course Semester One</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 2200</td>
<td>Physical Geography (Critical Tracking; Gen Ed Physical Sciences)</td>
<td>3</td>
</tr>
<tr>
<td>GEO 2200L</td>
<td>Physical Geography Laboratory (Gen Ed Physical Sciences)</td>
<td>1</td>
</tr>
<tr>
<td>MET 1010</td>
<td>Introduction to Weather and Climate (Gen Ed Physical Sciences)</td>
<td>3</td>
</tr>
<tr>
<td>State Core Gen Ed Composition; Writing Requirement</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Foreign language</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Semester Two</td>
<td>Credits</td>
<td>15</td>
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<tr>
<td>Select one:</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>CHM 1025</td>
<td>Introduction to Chemistry (Gen Ed Physical Sciences)</td>
<td></td>
</tr>
<tr>
<td>CHM 1030</td>
<td>Basic Chemistry Concepts and Applications 1 (Gen Ed Physical Sciences)</td>
<td></td>
</tr>
<tr>
<td>Select one:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEO 2410</td>
<td>Social Geography (Critical Tracking; Gen Ed Social and Behavioral Sciences and Diversity)</td>
<td></td>
</tr>
<tr>
<td>GEO 2420</td>
<td>Introduction to Human Geography (Critical Tracking; Gen Ed Social and Behavioral Sciences and International)</td>
<td></td>
</tr>
<tr>
<td>GEO 2500</td>
<td>Global and Regional Economies (Critical Tracking; Gen Ed Social and Behavioral Sciences)</td>
<td></td>
</tr>
<tr>
<td>IUF 1000</td>
<td>What is the Good Life (Gen Ed Humanities)</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Credits</td>
<td>13-14</td>
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<tr>
<td>Semester Three</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PHY 2004 &amp; 2004L</td>
<td>Applied Physics 1 and Laboratory for Applied Physics 1 (Gen Ed Physical Sciences)</td>
<td>3</td>
</tr>
<tr>
<td>STA 2023</td>
<td>Introduction to Statistics 1 (Critical Tracking; Gen Ed Mathematics)</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>State Core Gen Ed Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Semester Four</td>
<td>Credits</td>
<td>13</td>
</tr>
<tr>
<td>Systematic GEO/MET course (3000/4000 level)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHY 2005 &amp; 2005L</td>
<td>Applied Physics 2 and Laboratory for Applied Physics 2 (Gen Ed Physical Sciences)</td>
<td>4</td>
</tr>
<tr>
<td>Gen Ed Composition; Writing Requirement</td>
<td>3</td>
<td></td>
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<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>State Core Gen Ed Mathematics, pure math</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Semester Five</td>
<td>Credits</td>
<td>16</td>
</tr>
<tr>
<td>Regional GEA course (2000 - 4000 level)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

GEO 3162C | Introduction to Quantitative Analysis for Geographers (Gen Ed Physical Sciences) | 4 |
| State Core Gen Ed Biological Sciences | 3 |
| Elective (3000 level or above, not in major) | 3 |
| State Core Gen Ed Social and Behavioral Sciences | 3 |
| Semester Six | Credits | 16 |
| Systematic GEO/MET course (3000/4000 level) | 3-4 |
| Select one: | 4 |
| GIS 4001C | Maps and Graphs | |
| GIS 3043 | Foundations of Geographic Information Systems (technique) | |
| GLY 2010C | Physical Geology (Gen Ed Physical Sciences) | 4 |
| Elective (3000 level or above, not in major) | 3 |
| Gen Ed Humanities | 3 |
| Semester Seven | Credits | 17-18 |
| GEO 4930 | Senior Seminar | 1 |
| Systematic GEO/MET course (3000/4000 level) | 3 |
| SWS 3022 | Introduction to Soils in the Environment and Introduction to Soils in the Environment Laboratory (Gen Ed Physical Sciences) | 4 |
| Elective | 1 |
| Electives (3000 level or above, not in major) | 6 |
| Semester Eight | Credits | 15 |
| Technique GEO/GIS course (3000 level or above) | 3-4 |
| Gen Ed Biological Sciences | 3 |
| Electives (3000 level or above, not in major) | 6 |
| Gen Ed Social and Behavioral Sciences (if needed) | 3 |
| 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.

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
\( I = \text{Introduced}; \ R = \text{Reinforced}; \ A = \text{Assessed} \)

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

Assessment Types
- Capstone exam
- Portfolio