GEOLOGY | BA

A geology degree provides an understanding of issues associated with the physical earth and skills which are in demand in today’s job market. The geology graduate will have a detailed understanding of climate change, sustainability of the Earth’s resources, and the close interplay between human activity and the environment.

About this Program
- **College:** Liberal Arts and Sciences
- **Degrees:** Bachelor of Arts | B.A.: Environmental Geosciences | Bachelor of Science
- **Credits for Degree:** 120
- **Additional Information**
- **Related Geology Programs**

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

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
- 2.0 UF GPA required

Semester 3
- Complete one General Education Mathematics course
- Complete 1 of 3 critical-tracking courses with a 2.5 critical-tracking GPA. Choose one from a general introductory course (GLY 2010C, GLY 2030C, or any 1000-2000 level GLY, OCE or ESC course), a historical geology course (GLY 3105C or GLY 2100C), or a 3000-level geology course. GLY 2010C or GLY 2030C is recommended as one of these as prerequisite to many upper-level courses.
- 2.0 UF GPA required

Semester 4
- Complete one additional critical-tracking course with a 2.5 critical-tracking GPA
- 2.0 UF GPA required

Semester 5
- Complete all tracking courses with a 2.5 critical-tracking GPA; one general introductory course (GLY 2010C, GLY 2030C, or any 1000-2000 level GLY, OCE or ESC course), one historical geology course (GLY 3105C or GLY 2100C), and one 3000-level geology course.
- 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). One of the two general education mathematics courses must be a pure math course.

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</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>IUF 1000</td>
<td>What is the Good Life (Gen Ed Humanities)</td>
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<tr>
<td>State Core Gen Ed Composition; Writing Requirement</td>
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<tr>
<td>State Core Gen Ed Mathematics (Critical Tracking)</td>
<td>3-4</td>
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<tr>
<td>Foreign language</td>
<td>4-5</td>
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<td>Select one elective</td>
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<td>Semester Two</td>
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<td>16-18</td>
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<tr>
<td>GLY 2010C</td>
<td>Physical Geology (Critical Tracking; Gen Ed Physical Sciences)</td>
<td>3-4</td>
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<td>ESC 1000</td>
<td>Introduction to Earth Science (Critical Tracking; Gen Ed Physical Sciences)</td>
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<td>GLY 1000</td>
<td>Exploring the Geological Sciences (Critical Tracking; Gen Ed Physical Sciences)</td>
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<td>OCE 1001</td>
<td>Introduction to Oceanography (Critical Tracking; Gen Ed Physical Sciences)</td>
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<td>State Core Gen Ed Biological Sciences</td>
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<tr>
<td>State Core Gen Ed Social and Behavioral Sciences</td>
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<tr>
<td>Foreign language</td>
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<td>Semester Three</td>
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<td>Select one:</td>
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<tr>
<td>GLY 2100C</td>
<td>Historical Geology (Critical Tracking; Gen Ed Physical Sciences)</td>
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<td>GLY 3105C</td>
<td>Evolution of Earth and Life (Critical Tracking; Gen Ed Physical Sciences)</td>
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<td>Electives</td>
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<td>Elective or foreign language if 4-3-3 option</td>
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<tr>
<td>Gen Ed Social and Behavioral Sciences</td>
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<tr>
<td>Credits</td>
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<td>Semester Four</td>
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<td>GLY 3202C</td>
<td>Earth Materials (Critical Tracking)</td>
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<tr>
<td>Gen Ed Biological Sciences</td>
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<td>Gen Ed Mathematics</td>
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<td>Credits</td>
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<td>Semester Five</td>
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<td>Gen Ed Composition</td>
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<td>Electives (3000 level or above, not in major)</td>
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<tr>
<td>Geology elective (Critical Tracking; 3000 level or above)</td>
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<td>Gen Ed Humanities</td>
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<td>Credits</td>
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</table>
Semester Six
Geology electives (3000 level or above) 8
Electives (3000 level or above, not in major) 6
Credits 14

Semester Seven
Geology electives (3000 level or above) 7
Electives 9
Credits 16

Semester Eight
GLY 4155C Geology of Florida 3
Geology elective 2
Electives (3000 level or above, not in major) 6
Electives 4
Credits 15

Total Credits 120

1 Pure math if STA 2023 taken for state core in semester one.

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

Bachelor of Arts
The Bachelor of Arts in geology provides knowledge of the basic concepts related to earth materials and processes, and how to collect and organize geological data in the field. Through laboratory and field-based exercises, students will learn how to interpret geologic maps and cross sections, and to understand the application of the scientific method to solve these problems in teams and individually.

Before Graduating Students Must
• Pass GLY 4155C Geology of Florida according to the department grading rubric.
• Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes (SLOs)

Content
1. Identify, describe and define the basic concepts related to earth materials and processes.
2. Collect data in the field.
3. Organize geologic, temporal and spatial data.

Critical Thinking
4. Interpret geologic maps and cross sections.
5. Interpret results using the scientific method.

Communication
6. Produce a clearly and effectively written synthesis of data collected in the field.
7. Work in teams to solve geologic problems and to present the results of such collaboration effectively.

Curriculum Map
I = Introduced; R = Reinforced; A = Assessed

Courses SLO 1 SLO 2 SLO 3 SLO 4 SLO 5 SLO 6 SLO 7
GLY 2010C I I I I I I I
GLY 2101C R R R R R R R
GLY 3202B R R R R R R R

Assessment Types
• Lab assignments
• Projects
• Exams

Bachelor of Science
The Bachelor of Science in geology provides knowledge of the basic concepts, theories, observational findings related to earth materials and processes, minerals and rocks, geologic time, stratigraphy and landforms. Through laboratory and field-based exercises, students will learn how to analyze data in the published literature, synthesize analog and digital datasets to produce geological maps, and understand the application of the scientific method to solve geological problems in teams and individually.

Before Graduating Students Must
• Pass GLY 4790 Summer Field Camp according to the department grading rubric.
• Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes (SLOs)

Content
1. Identify, describe and define the basic concepts related to earth materials and processes.
2. Identify and describe minerals and rocks.
3. Define geologic time, stratigraphy and landforms.

Critical Thinking
4. Analyze data in the published literature.
5. Synthesize analog and digital datasets to produce geologic maps.
6. Apply the scientific method to the analysis of published and self-generated data.

Communication
7. Use computers for the presentation of geologic maps and data.
8. Solve geologic problems in teams and present the result of such collaboration effectively.

Curriculum Map
I = Introduced; R = Reinforced; A = Assessed

Courses SLO 1 SLO 2 SLO 3 SLO 4 SLO 5 SLO 6 SLO 7 SLO 8
GLY 2010C I I I I I I I
GLY 2101C R R R R R R R
GLY 3202B R R R R R R R
GLY 431R R R R R R R R
GLY 479A A A A A A A A

Assessment Types
• Six weeks of practical field exercises and mapping, including observation and data collection in New Mexico and the western USA