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 introductory course (GLY 2010C Physical Geology, GLY 2030C Environmental and Engineering Geology, or any 1000-2000 level GLY, OCE, or ESC course).
  GLY 2010C is recommended as it is a prerequisite for many upper-level courses.
- 2.0 UF GPA required

Semester 4
- Complete historical geology course (GLY 2100C or GLY 3105C) or GLY 3000-level geology course.
- Complete one related coursework requirement (CHM 2045/CHM 2045L, MAC 2311, or PHY 2004/PHY 2048/PHY 2053 and associated lab)
  2.5 Critical Tracking GPA
  2.0 UF GPA required

Semester 5
- Complete one 3000-level geology course (or historical geology course if not taken in semester 4)
  • Complete one additional related coursework requirement (CHM 2045/CHM 2045L, MAC 2311, or PHY 2004/PHY 2048/PHY 2053 and associated lab)
  • 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 Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IUF 1000 What is the Good Life (Gen Ed Humanities)</td>
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<tr>
<td>MAC 2311 Analytic Geometry and Calculus 1 (Critical Tracking; State Core Gen Ed Mathematics)</td>
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<tr>
<td>State Core Gen Ed Composition; Writing Requirement</td>
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<tr>
<td>Foreign language</td>
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Semester Two

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<td>CHM 2045 &amp; 2045L General Chemistry 1 and General Chemistry 1 Laboratory (Critical Tracking; State Core Gen Ed Physical Sciences)</td>
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<tr>
<td>MAC 2312 Analytic Geometry and Calculus 2 (Gen Ed Mathematics)</td>
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<tr>
<td>PHY 2004 &amp; 2004L Applied Physics 1 and Laboratory for Applied Physics 1 (Gen Ed Physical Sciences)</td>
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<tr>
<td>Foreign language</td>
<td>3-5</td>
</tr>
<tr>
<td>State Core Gen Ed Social and Behavioral Sciences</td>
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Semester Three

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<tr>
<td>Approved science course (Gen Ed Physical Sciences)</td>
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<tr>
<td>Select one:</td>
<td>3-4</td>
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<tr>
<td>GLY 2010C Physical Geology (Critical Tracking; Gen Ed Physical Sciences)</td>
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<tr>
<td>Introductory GLY course (Critical Tracking; Gen Ed Physical Sciences)</td>
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<tr>
<td>PHY 2005 &amp; 2005L Applied Physics 2 and Laboratory for Applied Physics 2 (Gen Ed Physical Sciences)</td>
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<tr>
<td>Approved science course (Gen Ed Physical Sciences)</td>
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<tr>
<td>Gen Ed Social and Behavioral Sciences</td>
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<td></td>
<td>Credits</td>
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</tbody>
</table>
Semester Four
Select one: 4

GLY 2100C  Historical Geology (Critical Tracking; Gen Ed Physical Sciences)
GLY 3105C  Evolution of Earth and Life (Critical Tracking)
Gen Ed Biological Sciences 3
State Core Gen Ed Humanities 3
Gen Ed Mathematics (or elective if Calculus 2 taken in semester two) 3
Gen Ed Social and Behavioral Sciences 3
Credits 16

Semester Five

GLY 3200C  Principles of Mineralogy (Critical Tracking; Gen Ed Physical Sciences)
GLY 4750L  Geological Field Methods 2
Electives (3000 level or above, not in major) 5
Gen Ed Humanities 3
Credits 14

Summer After Semester Six

GLY 4790  Geology Summer Field Camp 6
Credits 6

Semester Seven

GLY 4552C  Sedimentary Geology 4
Gen Ed Composition 3
Geology elective (any GLY course 3000 level or above) 3
Elective (3000 level or above, not in major) 3
Credits 13

Semester Eight

GLY 3603C  Paleontology (Gen Ed Physical Sciences) 4
GLY 4905  Individual Work (or one elective) 3
Electives (3000 level or above, not in major) 6
Credits 13

Total Credits 120

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 2100C  R  R  R  R  I  R  R
GLY 3202B  R  R  R  R  R  R  R
GLY 3603  R  R  R  R  R  R  R
GLY 4155C  A  A  A  A  A  A  A

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

<table>
<thead>
<tr>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
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Capstone

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