
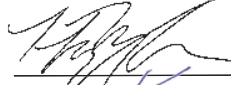
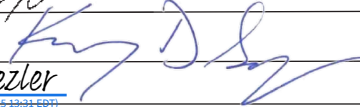


| | | | |
|--|--|---|---|
|  FLORIDA ATLANTIC UNIVERSITY | NEW/CHANGE PROGRAM REQUEST Undergraduate Programs | | UUPC Approval <u>4/21/2025</u> UFS Approval _____ Banner _____ Catalog _____ |
| | Department <u>GEOSCIENCES</u> College <u>SCIENCE</u> | | |
| Program Name Bachelor of Science in Geosciences | | <input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program* | Effective Date (TERM & YEAR) Spring 2026 |
| <p>Please explain the requested change(s) and offer rationale below or on an attachment.</p> <p>Climate Change Concentration: Add PHY 2053 College Physics I as "or" option to PHY 2048 General Physics I Add GLY 4324 Physical Volcanology as a Geoscience elective</p> <p>Geography Concentration: Add GLY 4324 Physical Volcanology as a Geoscience elective</p> <p>Geology Concentration: Add GLY 4324 Physical Volcanology as a Geoscience elective</p> <p>The amendments listed above will enhance the Bachelor of Science in Geosciences, by providing students with additional flexibility in the degree. Additionally, PHY 2053 better aligns with the Climate Change Concentration.</p> | | | |
| <p><small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small></p> | | | |
| Faculty Contact/Email/Phone James Gammack-Clark, jgammack@fau.edu, 561-297-0314 | | Consult and list departments that may be affected by the change(s) and attach documentation | |
| Approved by Department Chair  College Curriculum Chair  College Dean <u>Evonne Rezler</u> <small>Evonne Rezler (Apr 16, 2025 4:24 EDT)</small> UUPC Chair <u>Korey Sorge</u> Undergraduate Studies Dean <u>Dan Meeroff</u> UFS President _____ Provost _____ | | Date <u>4/1/25</u> <u>4/10/25</u> <u>04/10/25</u> <u>4/21/2025</u> <u>4/21/2025</u> _____ _____ | |

Email this form and attachments to mjenning@fau.edu seven business days before the UUPC meeting.

GEOSCIENCES
BACHELOR OF SCIENCE (B.S.)

Climate Change Concentration
Geography Concentration
Geology Concentration

(Minimum of 120 credits required)

The Geosciences core courses below (11 credits) are required of all students for the B.S. in Geosciences. Students then choose one of three concentrations: Climate Change, Geography or Geology. The Geography concentration is available in person or fully online. The other concentrations are available in person only.

Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Geosciences Core Courses (required of all students)

| | | |
|-----------------------------|-----------------|---|
| Introductory Statistics | STA 2023 | 3 |
| General Chemistry 1 and Lab | CHM 2045, 2045L | 4 |

| | | |
|---------------------------------|-----------|-----------|
| Introduction to Mapping and GIS | GIS 3015C | 3 |
| Geosciences Honors Colloquium | GEO 4920 | 1 |
| Core Total | | 11 |

Climate Change Concentration

In addition to the Geosciences core courses noted above (11 credits), students selecting the Climate Change Concentration are required to complete a Science core (14-15 credits), the Climate Change Concentration core (27 credits), and Geosciences and Interdisciplinary electives (21 credits) as noted below. The stipulated limit of 6 credits of GEO 4905/4915 DIS/DIR may be waived with the approval of a Geosciences Department advisor. The B.S. in Geosciences with a Climate Change Concentration requires a total of 73-74 credits.

Science Core Courses

| | | |
|--|----------------|--------------|
| Biological Principles and Lab | BSC 1010/1010L | 4 or |
| Biodiversity and Lab | BSC 1011/1011L | 4 or |
| Life Science and Life Science Lab or RI: Life Science Lab | BSC 1005/1005L | 3 |
| The Blue Planet | ESC 2000 | 3 or |
| Introduction to Physical Geography | GEO 2200C | 3 |
| Methods of Calculus | MAC 2233 | 3 |
| General Physics 1 and Lab | PHY 2048/2048L | 5 or |
| College Physics 1 | PHY 2053 | 4 |
| General Physics Lab 1 | PHY 2048L | 1 |
| Science Core Total | | 14-15 |

Climate Change Concentration Core Courses

| | | |
|---|----------|---|
| Environmental Issues in Atmospheric and Earth Science | ESC 3704 | 3 |
| Climate Change: Myths, Realities and Solutions | EVR 3114 | 3 |

| | | |
|--|-----------|-----------|
| Hazards, Climate and People | EVR 4112 | 3 |
| Quantitative Methods | GEO 4022 | 3 |
| Remote Sensing of the Environment | GIS 4035C | 3 |
| Principles of Geographic Information Systems | GIS 4043C | 3 |
| Weather and Climate | MET 2010 | 3 |
| Atmospheric Hazards | MET 3052 | 3 |
| Tropical Climatology | MET 3112 | 3 |
| Core Total | | 27 |

Geosciences and Interdisciplinary Electives

Choose 21 credits from the courses below.

| | | |
|---|-----------|---|
| Conservation Biology | BSC 3052 | 3 |
| Climate Change Biology: Ecosystems to Human Health | BSC 4307 | 3 |
| Microeconomic Principles | ECO 2023 | 3 |
| Environmental Economics | ECP 4302 | 3 |
| Environmental Science and Engineering | ENV 3001C | 3 |
| RI: Human-Environmental Interactions in South Florida | GEA 4275 | 3 |
| Sea-Level Rise: Impacts and Responses | GEO 3342 | 3 |
| Programming in GIS | GIS 4102C | 3 |
| Water Resources | GEO 4280C | 3 |
| Biogeography | GEO 4300 | 3 |
| Directed Independent Study | GEO 4905 | 3 |
| Directed Independent Research in Geosciences | GEO 4915 | 3 |
| Mobile GIS and Drone Technology | GIS 4140C | 3 |
| Coastal and Marine Science | GLY 3730 | 3 |
| Environmental Geochemistry | GLY 4241 | 3 |
| Physical Volcanology | GLY 4324 | 3 |

| | | |
|--|----------|-----------|
| Hydrogeology | GLY 4822 | 3 |
| Comparative Environmental Politics | INR 4054 | 3 |
| Global Environmental Politics and Policies | INR 4350 | 3 |
| Climate Data Applications | MET 4142 | 3 |
| Disaster and Emergency Management | PAD 4393 | 3 |
| Principles of Ecology | PCB 4043 | 3 |
| Sociology of Climate and Disaster | SYP 4464 | 3 |
| RI: Sustainable Cities | URP 4403 | 3 |
| Environmental Planning Methods | URP 4420 | 3 |
| Planning for Hazards/Disasters | URP 4430 | 3 |
| Geosciences and Interdisciplinary Electives Total | | 21 |

Geography Concentration

In addition to the Geosciences core courses noted above, students selecting the Geography Concentration are required to complete a Science core (7 credits), the Geography Concentration core (24 credits), and Geosciences electives (30 credits) as noted below. The stipulated limit of 6 credits of GEO 4905/4915 DIS/DIR may be waived with the approval of a Geosciences Department advisor. The B.S. in Geosciences with a Geography Concentration requires a total of 72 credits.

Science Core Courses

| | | |
|-------------------------------|----------------|-------------|
| Biological Principles and Lab | BSC 1010/1010L | 4 or |
| Biodiversity and Lab | BSC 1011/1011L | 4 |
| Methods of Calculus | MAC 2233 | 3 |
| Science Core Total | | 7 |

Geography Concentration Core Courses

| | | |
|------------------------------------|-----------|---|
| World Geography | GEA 2000 | 3 |
| Introduction to Physical Geography | GEO 2200C | 3 |

| | | |
|---|-----------|-----------|
| Weather and Climate | MET 2010 | 3 |
| Quantitative Methods | GEO 4022 | 3 |
| Principles of GIS | GIS 4043C | 3 |
| Remote Sensing of the Environment | GIS 4035C | 3 |
| RI: Human-Environmental Interactions in South Florida | GEA 4275 | 3 |
| Biogeography | GEO 4300 | 3 |
| Core Total | | 24 |

Geosciences Electives

Choose 30 credits from the courses below.

| | | |
|---|-----------|---|
| Environmental Issues in Atmospheric and Earth Science | ESC 3704 | 3 |
| Climate Change: Myths, Realities and Solutions | EVR 3114 | 3 |
| Introduction to Coastal Freshwater Resources | EVR 4322 | 3 |
| Hazards, Climate, and People | EVR 4112 | 3 |
| Water Resources | GEO 4280C | 3 |
| Tourism and Commercial Recreation | GEO 4542 | 3 |
| Urban Geography | GEO 4602 | 3 |
| Transportation and Spatial Organization | GEO 4700 | 3 |
| Directed Independent Study | GEO 4905 | 3 |
| Directed Independent Research | GEO 4915 | 3 |
| Applications in GIS | GIS 4048C | 3 |
| Photogrammetry and Aerial Photograph Interpretation | GIS 4021C | 3 |
| Digital Image Analysis | GIS 4037C | 3 |
| Web GIS | GIS 4054C | 3 |
| Programming in GIS | GIS 4102C | 3 |
| Geospatial Databases | GIS 4118 | 3 |
| Geovisualization and GIS | GIS 4138C | 3 |

| | | |
|------------------------------------|-----------|-----------|
| Mobile GIS and Drone Technology | GIS 4140C | 3 |
| Spatial Data Analysis | GIS 4115C | 3 |
| Coastal and Marine Science | GLY 3730 | 3 |
| Physical Volcanology | GLY 4324 | 3 |
| Geomorphology | GLY 4700C | 3 |
| Hydrogeology | GLY 4822 | 3 |
| Atmospheric Hazards | MET 3052 | 3 |
| Tropical Climatology | MET 3112 | 3 |
| Climate Data Applications | MET 4142 | 3 |
| Geosciences Electives Total | | 30 |

Geology Concentration

In addition to the Geosciences core courses noted above (11 credits), students selecting the Geology Concentration are required to complete a Science core (17 credits), the Geology Concentration core (34 credits), and Geosciences electives (12 – 13 credits) as noted below. The stipulated limit of 3 credits of GLY 4905/4915 DIS/DIR may be waived with the approval of a Geosciences Department advisor. The B.S. in Geosciences with a Geology Concentration requires a total of 74-75 credits.

Science Core Courses

| | | |
|-----------------------------------|-----------|-----------|
| General Physics 1 | PHY 2048 | 4 |
| General Physics 1 Lab | PHY 2048L | 1 |
| General Physics 2 | PHY 2049 | 4 |
| Calculus with Analytic Geometry 1 | MAC 2311 | 4 |
| Calculus with Analytic Geometry 2 | MAC 2312 | 4 |
| Science Core Total | | 17 |

Geology Concentration Core Course

| | | |
|---|-----------|---|
| Physical Geology/Evolution of the Earth | GLY 2010C | 4 |
|---|-----------|---|

| | | |
|--------------------------------|-----------|-----------|
| History of the Earth and Life | GLY 2100 | 3 |
| Mineralogy and Petrology | GLY 4310C | 4 |
| Structural Geology | GLY 4400C | 4 |
| Solid Earth Geophysics | GLY 4451 | 3 |
| Stratigraphy and Sedimentation | GLY 4500C | 4 |
| Geology Field Methods | GLY 4750C | 3 |
| Field Camp | GLY 4790 | 6 |
| Hydrogeology | GLY 4822 | 3 |
| Core Total | | 34 |

Geosciences Electives

Choose 12 to 13 credits from the list below

| | | |
|--|-----------|----------------|
| Introduction to Coastal Freshwater Resources | EVR 4453 | 3 |
| Remote Sensing of the Environment OR | GIS 4035C | 3 |
| Principles of GIS | GIS 4043C | 3 |
| Geology of Florida | GLY 4155C | 4 |
| Paleontology | GLY 3603C | 3 |
| Coastal and Marine Science | GLY 3730 | 3 |
| Environmental Geochemistry | GLY 4241 | 3 |
| Physical Volcanology | GLY 4324 | 3 |
| Ancient Carbonate Platforms | GLY 4351C | 3 |
| Geomorphology | GLY 4700C | 3 |
| Groundwater Numerical Modeling | GLY 4832C | 3 |
| Directed Independent Study OR | GLY 4905 | 3 |
| Directed Independent Research in Geosciences | GLY 4915 | 3 |
| Geosciences Electives Total | | 12 - 13 |






Program Change BS Geosciences 2025

Final Audit Report

2025-04-10

| | |
|-----------------|---|
| Created: | 2025-04-10 |
| By: | Korey Sorge (ksorge@fau.edu) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAASStKqeOZ2tZksu_wl3tLt7QEY8UDG1Z3f |

"Program Change BS Geosciences 2025" History

-  Document created by Korey Sorge (ksorge@fau.edu)
2025-04-10 - 3:27:18 PM GMT
-  Document emailed to Evonne Rezler (erezler@fau.edu) for signature
2025-04-10 - 3:27:22 PM GMT
-  Email viewed by Evonne Rezler (erezler@fau.edu)
2025-04-10 - 3:28:03 PM GMT
-  Document e-signed by Evonne Rezler (erezler@fau.edu)
Signature Date: 2025-04-10 - 5:31:29 PM GMT - Time Source: server
-  Agreement completed.
2025-04-10 - 5:31:29 PM GMT