

## Bachelor of Arts with Major in Geosciences

(Minimum of 120 credits required)

The Geoscience core courses below (10 credits) are required of all students for the B.A. in Geosciences. Students then choose between a focus in either Geography or Geology.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations 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 [\*Transfer Student Manual\*](#).

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.

<b>Geoscience Core Courses (all required)</b>		
Geosciences Colloquium	GEO 4920	1
Introduction to Mapping and GIS	GIS 3015C	3
Introductory Statistics	STA 2023	3
Weather and Climate	MET 2010	3
<b>Geoscience Core Total</b>		<b>10</b>

### Bachelor of Arts with Major in Geosciences: Geography Focus

In addition to the Geoscience core courses for B.A. in Geosciences, students with a Geography focus are required to complete the Geography focus core (12 credits). Students then take a minimum of 6 credits from each of the three areas of emphasis (environmental systems, human systems and GIScience 18-19 credits). Another 15 elective credits should be chosen from these areas too. Total credits for the B.A. in Geosciences with a Geography focus are 55-56.

<b>Geography Focus Core Courses</b>		
World Geography	GEA 2000	3
Introduction to Physical Geography	GEO 2200C	3
Quantitative Methods	GEO 4022	3
Human-Environmental Interactions in South Florida	GEA 4275	3
<b>Geography Focus Core Total</b>		<b>12</b>
<b>Areas of Emphasis (select 33-34 credits, minimum 6 credits from each of the three areas below)</b>		
<b>Environmental Systems</b>		
The Blue Planet	ESC 2000	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Coastal and Marine Science	GLY 3730	3
Water Resources	GEO 4280C	3

Biogeography	GEO 4300	3
Geomorphology	GLY 4700C	3
Hydrogeology	GLY 4822	3
<b>Human Systems</b>		
Geography of Latin America and the Caribbean	GEA 4405	3
American Cultural Landscape	GEO 4422	3
Tourism and Commercial Recreation	GEO 4542	3
Urban Geography	GEO 4602	3
Transportation and Spatial Organization	GEO 4700	3
<b>GIScience</b>		
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Remote Sensing of the Environment	GIS 4035C	3
Digital Image Analysis	GIS 4037C	3
Principles of GIS	GIS 4043C	3
Applications in GIS	GIS 4048C	3
Programming in GIS	GIS 4102C	3
Geovisualization and GIS	GIS 4138C	3
Spatial Data Analysis	GEO 4167C	3
Introduction to Hydrogeology Modeling and Aquifer Test	GLY 4832C	3
<b>Areas of Emphasis Total</b>		<b>33-34</b>

### Bachelor of Arts with Major in Geosciences: Geology Focus

In addition to the Geoscience core courses for B.A. in Geosciences, students with a Geology focus are required to complete a science core (19 credits), Geology focus core (10 credits), and Geoscience electives (18-22 credits). Total credits for the B.A. in Geosciences with a Geology focus are 57-71.

<b>Science Core Courses</b>		
Biodiversity and Lab	BSC 1011/1011L	or
Biological Principles and Lab	BSC 1010/1010L	4
College Algebra	MAC 1105	3
Introduction to Astronomy	AST 2002	3
General Chemistry 1 and Lab	CHM 2045/2045L	4
General or College Physics and Lab	PHY 2048 or PHY 2053 & 2048L	5
<b>Science Core Total</b>		<b>19</b>
<b>Geology Focus Core Courses</b>		
Physical Geology/Evolution of the Earth	GLY 2010C	4

History of the Earth and Life	GLY 2100	3
Field Methods	GLY 4750C	3
<b>Geology Focus Core Total</b>		<b>10</b>
<b>Geoscience Electives (Selective six courses chosen from the list below):</b>		
Solar System Astronomy	AST 3110	3
Paleontology	GLY 3603C	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Coastal and Marine Science	GLY 3730	3
Mineralogy and Crystal Chemistry	GLY 4200C	4
<b>Environmental Geochemistry</b>	GLY 4241	<b>3</b>
<b>Water Resources</b>	GEO 4280	<b>3</b>
Petrology of Igneous and Metamorphic Rocks	GLY 4310C	4
Structural Geology	GLY 4400C	4
Stratigraphy and Sedimentation	GLY 4500C	4
Geomorphology	GLY 4700C	3
Hydrogeology	GLY 4822	3
<b>Geoscience Elective Total</b>		<b>18-22</b>

## Bachelor of Sciences with Major in Geosciences

(Minimum of 120 credits required)

The Geoscience core courses below (15 credits) are required of all students for the B.S. in Geosciences. Students then choose between a focus in either Geography or Geology.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations 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 [\*Transfer Student Manual\*](#).

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.

<b>Geoscience Core Courses (all required)</b>		
Geosciences Colloquium	GEO 4920	1
Introduction to Mapping and GIS	GIS 3015C	3
Introductory Statistics	STA 2023	3
Calculus with Analytic Geometry 1	MAC 2311	4
General Chemistry 1 and Lab	CHM 2045, 2045L	4
<b>Geoscience Core Total</b>		<b>15</b>

## Bachelor of Sciences with Major in Geosciences: Geography Focus

In addition to the Geoscience core courses for B.S. in Geosciences, students with a Geography focus are required to complete a science core (4 credits), Geography focus core (24 credits), and geoscience elective (30-31 credits). Total credits for the B.S. in Geosciences with a Geography focus are 73-74.

<b>Science Core Courses (all required)</b>		
Biodiversity and Lab	BSC 1011/1011L	Or
Biological Principles and Lab	BSC 1010/1010L	4
<b>Science Core Total</b>		<b>4</b>
<b>Geography Focus Core Courses (all required)</b>		
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
Human-Environmental Interactions in South Florida	GEA 4275	3
Biogeography	GEO 4300	3
<b>Geography Focus Core Total</b>		<b>24</b>
<b>Geoscience Electives (select 30-31 credits from the courses below)</b>		
The Blue Planet	ESC 2000	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Coastal and Marine Science	GLY 3730	3
Applications in GIS	GIS 4048C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Digital Image Analysis	GIS 4037C	3
Programming in GIS	GIS 4102C	3
Geovisualization and GIS	GIS 4138C	3
Spatial Data Analysis	GEO 4167C	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
Geomorphology	GLY 4700C	3
Hydrogeology	GLY 4822	3
Introduction to Hydrogeology Modeling and Aquifer Test	GLY 4832C	3
<b>Geoscience Electives Total</b>		<b>30-31</b>

### Bachelor of Sciences with Major in Geosciences: Geology Focus

In addition to the Geoscience core courses for B.S. in Geosciences, students with a Geology focus are required to complete a science core (10 credits), Geology focus core (38 credits), and geoscience elective (9 credits). Total credits for the B.S. in Geosciences with a Geology focus are 72.

<b>Science Core Courses</b>		
Physics for Engineers 1	PHY 2043	3
Physics for Engineers 2	PHY 2044	3
Calculus with Analytic Geometry 2	MAC 2312	4
<b>Science Core Total</b>		<b>10</b>
<b>Geology Focus Core Courses</b>		
Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Mineralogy and Crystal Chemistry	GLY 4200C	4
Petrology of Igneous and Metamorphic Rocks	GLY 4310C	4
Structural Geology	GLY 4400C	4
Solid Earth Geophysics	GLY 4451	3
Stratigraphy/Sedimentation	GLY 4500C	4
Field Methods	GLY 4750C	3
Field Camp	GLY 4790	6
Hydrogeology	GLY 4822	3
<b>Geology Core Total</b>		<b>38</b>
<b>Geoscience Electives (Choose 9 credits from below, 6 of which must be at the 4000 level)</b>		
Geology of Florida	GLY 3155C	3
Paleontology	GLY 3603C	3
Coastal and Marine Science	GLY 3730	3
Remote Sensing of the Environment	GLY 4035C	3
Principles of GIS	GIS 4043C	3
Environmental Geochemistry	GLY 4241	3
Water Resources	GEO 4280C	3
Geomorphology	GLY 4700C	3
Engineering Geology	GLY 4830	3
Introduction to Hydrogeology Modeling and Aquifer Testing	GLY 4832C	3
<b>Geoscience Electives Total</b>		<b>9</b>