

MINOR IN EARTH AND ATMOSPHERIC SCIENCES

The School of Earth and Atmospheric Sciences offers a minor with seven different tracks. These specific tracks are designed to give non-majors a background in the environmental and global change issues that face the world. This background both allows a broader exposure and gives a strategic background for many careers. The seven tracks are:

- Climate Change
- Earth System Physics
- Environmental Chemistry
- Environmental Science
- Geophysics
- Meteorology
- Ocean Sciences

Minor Program of Study & Guidelines

EAS Minor Information

Program of Study - Climate Change Track

The EAS minor with a Climate Change track is for students in majors outside of EAS who have an interest in understanding Climate Change and Issues surrounding it. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 credit hours, of which at least 9 credit hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Courses		
EAS 2750	Physics of the Weather	3
EAS 4410	Climate and Global Change	3
Electives		
Select three electives with a minimum of 3 credit hours from each of the following areas:		9
EAS Electives		
Electives		
Total Credit Hours		15

EAS Electives

Code	Title	Credit Hours
EAS 3110	Energy, Environment, and Society	3
EAS 3620	Geochemistry	4
EAS 4350	Paleoclimatology and Paleoceanography	3
EAS 4655	Atmospheric Dynamics	3
EAS 4656	Atmospheric Dynamics Practicum	1
EAS 4670	Atmospheric Dynamics II	3
EAS 4699	Undergraduate Research ¹	3
EAS 4740	Atmospheric Chemistry Laboratory	3

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

Approved Electives

Code	Title	Credit Hours
ECON 2101	The Global Economy	3
ECON 4440	Economics of Natural Resources and the Environment	3
PUBP 3315	Environmental Policy and Politics	3

Program of Study - Earth System Physics

The EAS minor with an Earth System Physics track is for students in majors outside of EAS interested in applying physical and mathematical principles to environmental problems. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 semester hours, of which at least 9 semester hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Courses		
EAS 3610	Introduction to Geophysics	3
EAS 4655	Atmospheric Dynamics	3
Electives		
Select three of the following:		9
EAS 2750	Physics of the Weather	
EAS 3603	Thermodynamics of Earth Systems	
EAS 4312	Geodynamics	
EAS 4331	Physical Volcanology	
EAS 4360	Space Physics and Space Instrumentation	
EAS 4370	Physics of Planets	
EAS 4410	Climate and Global Change	
EAS 4450	Synoptic Meteorology	
EAS 4470	Large-scale Atmospheric Circulations	
EAS 4699	Undergraduate Research ¹	
Total Credit Hours		15

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

Program of Study - Environmental Chemistry

The EAS minor with an Environmental Chemistry track is for students in majors outside of EAS that seek to understand and address environmental problems within the context of chemical systems. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 credit hours, of which at least 9 credit hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Courses		
EAS 3620	Geochemistry	4
EAS 4740	Atmospheric Chemistry Laboratory	3
Electives		
Select 8 credit hours from the following:		8
EAS 3110	Energy, Environment, and Society	

EAS 4420	Environmental Field Methods
EAS 4602	Biogeochemical Cycles
EAS 4610	Earth System Modeling
EAS 4699	Undergraduate Research ¹
EAS 4795	Groundwater Hydrology

Total Credit Hours 15

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

Program of Study - Environmental Science

The EAS minor with an Environmental Science track is for students in majors outside of EAS who have an interest in understanding the Environment and Issues surrounding it. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 credit hours, of which at least 9 credit hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Course		
EAS 1600	Introduction to Environmental Science or EAS 1601Habitable Planet	4
Electives		
Select 11 credit hours from the following:		11
EAS 2600	Earth Processes	
EAS 2750	Physics of the Weather	
EAS 3110	Energy, Environment, and Society	
EAS 3620	Geochemistry	
EAS 4410	Climate and Global Change	
EAS 4420	Environmental Field Methods	
EAS 4300	Introduction to Physical and Chemical Oceanography	
EAS 4350	Paleoclimatology and Paleoceanography	
EAS 4699	Undergraduate Research ¹	
EAS 4740	Atmospheric Chemistry Laboratory	
Total Credit Hours		15

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

Program of Study - Geophysics

The EAS minor with a Geophysics track is for students in majors outside of EAS majoring in science and engineering. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 credit hours, of which at least 9 credit hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Courses		
EAS 2600	Earth Processes	4
EAS 3610	Introduction to Geophysics	3
Electives		

Select 8 credit hours from the following: 8

EAS 4312	Geodynamics
EAS 4314	Seismology
EAS 4331	Physical Volcanology
EAS 4360	Space Physics and Space Instrumentation
EAS 4370	Physics of Planets
EAS 4699	Undergraduate Research ¹
EAS 4795	Groundwater Hydrology

Total Credit Hours 15

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

Program of Study - Meteorology

The EAS minor with a Meteorology track is for students in majors outside of EAS majoring in science and engineering. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 credit hours, of which at least 9 credit hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Courses		
EAS 2551	Introduction to Meteorological Analysis	1
EAS 2750	Physics of the Weather	3
EAS 4655	Atmospheric Dynamics	3
Electives		
Select 8 credit hours from the following:		8
EAS 3603	Thermodynamics of Earth Systems	
EAS 4410	Climate and Global Change	
EAS 4450	Synoptic Meteorology	
EAS 4460	Satellite and Radar Meteorology	
EAS 4470	Large-scale Atmospheric Circulations	
EAS 4480	Environmental Data Analysis	
EAS 4610	Earth System Modeling	
EAS 4656	Atmospheric Dynamics Practicum	
EAS 4670	Atmospheric Dynamics II	
EAS 4699	Undergraduate Research ¹	
Total Credit Hours		15

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

Program of Study - Ocean Sciences

The EAS minor with an Ocean Sciences track is for students in majors outside of EAS majoring in Biology, Civil and Environmental Engineering, Chemistry and Biochemistry, and Chemical and Biomolecular Engineering. Prerequisites required for some of the classes listed below. **This minor must comprise at least 15 credit hours, of which at least 9 credit hours are upper-division coursework (numbered 3000 or above).**

Code	Title	Credit Hours
Required Courses		
EAS 4300	Introduction to Physical and Chemical Oceanography	3

Select one of the following: 4

EAS 1600 Introduction to Environmental Science

EAS 1601 Habitable Planet

EAS 2600 Earth Processes

Electives

Select 8 credit hours from the following: 8

EAS 3620 Geochemistry

EAS 4350 Paleoclimatology and Paleoceanography

EAS 4410 Climate and Global Change

EAS 4420 Environmental Field Methods

EAS 4480 Environmental Data Analysis

EAS 4610 Earth System Modeling

EAS 4655 Atmospheric Dynamics

EAS 4699 Undergraduate Research ¹

BIOL 4221 Biological Oceanography

BIOL 4417 Marine Ecology

Total Credit Hours 15

¹ A maximum of 3 credit hours of EAS 4699 may be included in the EAS minor program.

1. All courses counting toward the minor must be taken on a letter-grade basis and must be completed with a grade of C (2.00) or better.
2. A maximum of 3 credit hours of transfer credit may be used to satisfy the course requirements for a minor. This includes courses taken at another institution or credit earned through the AP or IB program, assuming the scores meet Georgia Tech minimum standards.
3. It is the **major advisor's responsibility** to verify that students are using only courses from the designated block(s) from the student's major field of study that are allowed to satisfy a minor program, that they are not using any Core Area A-E courses (including humanities and social sciences), and that they are not using any courses for more than one minor or certificate. Any free elective course used to satisfy the course requirements of the student's major degree program may also be used to satisfy the course requirements for a minor.