

# Environmental Science, BS

The Bachelor of Science in Environmental Science is an interdisciplinary program that combines an understanding of the science of the environment with the social and political issues that impact environmental policy. The program provides a strong foundation in the disciplines of oceanography, meteorology, and astronomy, supplemented by chemistry and biology. Students also take courses that incorporate an understanding of the social and political challenges around environmental policy with the underlying science. By combining science and policy, students have an opportunity to apply scientific and social/political theory and technical knowledge to the understanding of our natural world.

Graduates may pursue careers in government, nonprofits, and private industry, working to address environmental issues through a combination of science and policy.

## Program Requirements

Complete all courses listed below unless otherwise indicated.

### University-Wide Requirement

Minimum 120 total semester hours required

Minimum 2.000 GPA required

Students must earn a minimum of 60 Northeastern University semester hours in order to receive a bachelor's degree.

*Note:* Individual program requirements may exceed the above minima.

### NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (<http://catalog.northeastern.edu/professional-studies/university-academics/nupath>).

### Foundation Courses

40 semester hours required

Code	Title	Hours
<b>English</b>		
Complete one of the following:		4
ENG 1105 and ENG 1106	College Writing 1 and Lab for ENG 1105	
ENG 1103 and ENG 1104	College Writing 1 for Nonnative Speakers and Lab for ENG 1103	
Complete the following two courses with corresponding labs:		
ENG 1107 and ENG 1108	College Writing 2 and Lab for ENG 1107	4
ENG 3107 and ENG 3108	Writing for the Professions: Business and the Social Sciences and Lab for ENG 3107	4
<b>Mathematics</b>		
MTH 1100	College Algebra	3
MTH 2310	Statistics for the Behavioral and Social Sciences	3
<b>Information Technology</b>		
ITC 1000 or ITC 2016	Computer Applications End-User Data Analysis Tools	3

### Philosophy

PHL 2140	Ethical Issues in Science and Engineering	3
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### Biology

BIO 1100 and BIO 1101	Principles of Biology 1 and Lab for BIO 1100	4
BIO 1200 and BIO 1201	Principles of Biology 2 and Lab for BIO 1200	4

### Chemistry

CHM 1100 and CHM 1101	General Chemistry 1 and Lab for CHM 1100	4
CHM 1200 and CHM 1201	General Chemistry 2 and Lab for CHM 1200	4

## Major Courses

42 semester hours required

Code	Title	Hours
<b>The Earth System</b>		
ESC 1100	The Geosphere: Physical and Historical Geology	3
ESC 1150	The Atmosphere	3
ESC 1200	The Hydrosphere: Oceanography, Ground and Surface Water	3
ESC 2100	Planetary Science	3
<b>Environment and Society</b>		
ESC 1250	The Environment and Society	3
ESC 2200	Natural Disasters: Evaluating Risk, Minimizing Loss	3
ESC 3100	Introduction to Geographical Information Systems	3
ESC 3240	Energy: Sources and Issues	3
ESC 3250	Urban Ecology	3
<b>Sustainability and Ecosystems</b>		
ESC 3200	Wetlands Ecosystems	3
ESC 3210	Air, Water, and Life: Pollution	3
ESC 3220	Water on and Underground: Geochemistry and Hydrology	3
ESC 3230	Soils and Sustainability	3
<b>Capstone</b>		
ESC 4850	Environmental Assessment and Remediation	3

## Open Electives

Complete a minimum of 38 semester hours to reach 120 semester hours.

## Plan of Study

Term 1	Hours
Complete one of the following:	4
ENG 1105 and ENG 1106	
ENG 1103 and ENG 1104	
MTH 1100	3

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BIO 1100 and BIO 1101	4
ESC 1100	3
	14

**Term 2** **Hours**

ENG 1107 and ENG 1108	4
MTH 2310	3
BIO 1200 and BIO 1201	4
ESC 1150	3
	14

**Term 3** **Hours**

ESC 1200	3
CHM 1100 and CHM 1101	4
ITC 1000 or 2016	3
ESC 1250	3
Open elective	3
	16

**Term 4** **Hours**

ESC 2100	3
CHM 1200 and CHM 1201	4
ESC 2200	3
PHL 2140	3
Open elective	3
	16

**Term 5** **Hours**

ESC 3200	3
ESC 3210	3
ESC 3100	3
ENG 3105 and ENG 3106	4
Open elective	3
	16

**Term 6** **Hours**

ESC 3220	3
ESC 3230	3
ESC 3250	3
Open elective	3
Open elective	3
	15

**Term 7** **Hours**

ESC 3240	3
Open elective	3
Open elective	3
Open elective	3
Open elective	3
	15

**Term 8** **Hours**

ESC 4850	3
Open elective	3

Open elective	3
Open elective	3
Open elective	2-3
	14-15

Total Hours: 120-121