

Major in Earth Science

This major is not currently admitting students. Please contact the department for further information.

Major in Earth Science for the Bachelor of Science Degree

The Bachelor of Science in Earth Science prepares students for graduate study, or a wide range of positions in geoscience fields, including industry, consulting, or state/federal agencies. In addition to required and elective ESCI courses, cognate courses (math and science) are also required for completion of the degree program. All students are urged to plan their program with the help of ESCI faculty advising.

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University Core Curriculum Requirements

General Education Distribution Area	Cr. Hrs.
Fine Arts (FA)*	6
2 courses, from at least two of the following areas of study: Art, CMT (Mass Media or Theatre), Music (includes Dance).	
Humanities (HU)*	9
3 courses, from at least two of the following areas of study: CMT (Communication), English, Linguistics, Philosophy, Women's and Gender Studies, World Languages and Cultures, (Note: No more than two foreign language courses may be used to fulfill this requirement.)	
Behavioral/Social Sciences (SB)*	9
3 courses, from at least two of the following areas of study: African & African American Studies, Anthropology, Computer Science, Economics, Geography & Environmental Studies, History, Justice Studies, Latino & Latin American Studies, Political Science, Psychology, Sociology, Social Work	
Natural Sciences (NS and NSL)**	9
3 courses, from at least two of the following areas of study; one course must have a laboratory component (NSL): Biology, Chemistry, Earth Science, Environmental Science, Physics (Note: If an FYE ANTH that counts as Natural Science is taken, only one Biology course may be used for Natural Science).	

Engaged Learning Experiences

Students must complete, at Northeastern, three courses designated as Engaged Learning Experiences courses. One of the Engaged Learning Experiences courses must be at the 300-level, and one Engaged Learning Experiences course must be designated as "Boundary Crossing".

Discipline Specific (ELE-DS)

These courses have pre-requisites that are specific courses within a program of study. Discipline Specific courses give students a deeper understanding of how knowledge is created and applied in their field.

Boundary Crossing (ELE-X)

These are courses that cross disciplinary boundaries and/or cross boundaries through engagements outside the classroom or University allowing students to see how knowledge gained in one field might inform other fields or other aspects of society.

Math/Quantitative Reasoning (MA)

1 Math course, that has intermediate Algebra as prerequisite OR is a course listed on the General Education Distributive Learning List of Approved Courses. Any 3 hour college level math course, beyond Intermediate Algebra, meets this requirement.

* Majors in Fine Arts, Humanities or Social/Behavioral Sciences, may waive up to 6 credit hours of General Education requirements in the corresponding distribution area.

** Majors in Natural Sciences may waive up to 9 credit hours of General Education requirements in the Natural Sciences distribution area.

Students should also be aware of all other university requirements to obtain a degree - NEIU requirements (<http://catalog.neiu.edu/graduation-requirements/bachelors-degree/>)

Major in Earth Science requirements (71-72 cr. hrs.)

Code	Title	Hours
Required Courses		
ESCI-211	Physical Geology	4
ESCI-303	Environmental Geology In The Field	4
ESCI-306	Writing Intensive Program: Earth Materials	4
ESCI-307	Climate Change: Evidence, Causes, Effects	4
ESCI-311	Mineralogy And Petrology I	4
ESCI-312	Historical Geology	4
ESCI-317	Sedimentology And Stratigraphy	4
ESCI-330	Structural Geology	4
ESCI-390	Field Geology	5
Electives in Earth Science:		
Choose from 300-level course offerings		8
Required Courses in Related Fields:		
CHEM-211	General Chemistry I	5
MATH-187	Calculus I	4
MATH-202	Calculus II ¹	4
or MATH-275	Applied And Computational Statistics	
PHYS-201L	College Physics I With Lab	5
or PHYS-206L	University Physics I With Lab	
Select two of the following: ²		8-9
BIO-201	General Biology I	
BIO-202	General Biology II	
CHEM-212	General Chemistry II ¹	
CHEM-213	Writing Intensive Program: Quantitative Analysis	
CHEM-231	Organic Chemistry I	
PHYS-202L	College Physics II With Lab	
or PHYS-207L	University Physics II With Lab	
PHYS-305	Modern Physics I	
Total Hours		71-72

¹ Students planning to pursue an advanced degree in geoscience should plan to incorporate these cognate courses.

² Course substitutions may be allowed by prior arrangement with the undergraduate program advisor. Check program listings for course pre-requisites/ co-requisites.

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This sample curricular map is provided to guide you in the planning of your progression for the Earth Science major. This guide should not replace regular consultations with your Earth Science advisor. Please contact the Earth Science Department to develop your specific plan of study and for recommendations regarding your academic progress. Undergraduate Advisor: Nadja Insel (n-insel@neiu.edu); Coordinator: Elisabet Head (e-head@neiu.edu).

First Year

Term 1	Hours
ESCI-211	Physical Geology 4
CHEM-211	General Chemistry I 5

ENGL-101	Writing I	3
Term Hours		12
Term 2		
ESCI-306	Writing Intensive Program: Earth Materials	4
ESCI-312	Historical Geology	4
MATH-187	Calculus I	4
ENGL-102	Writing II	3
Term Hours		15
Second Year		
Term 1		
ESCI-303	Environmental Geology In The Field	4
ESCI-311	Mineralogy And Petrology I	4
CHEM-212	General Chemistry II	4
Fine Arts Course		3
Social/Behavior Science Course		3
Term Hours		18
Term 2		
MATH-202 or 275	Calculus II	4
PHYS-201L	College Physics I With Lab	5
300-level Earth Science Elective		4
Humanities Course		3
Term Hours		16
Third Year		
Term 1		
ESCI-317	Sedimentology And Stratigraphy	4
PHYS-202L	College Physics II With Lab	5
GES-391	Introduction To GIS	3
300-level Earth Science Course		4
Social/Behavioral Science Course		3
Term Hours		19
Term 2		
ESCI-307	Climate Change: Evidence, Causes, Effects	4
ESCI-330	Structural Geology	4
300-level ESCI Elective		4
Humanities Course		3
Term Hours		15
Term 3		
ESCI-390 (Taken during the Summer term of third year)	Field Geology	5
Term Hours		5
Fourth Year		
Term 1		
Social/Behavioral Science Course		3
Fine Arts Course		3
Humanities Course		3
Elective		3
Term Hours		12
Term 2		
Social/Behavioral Science Course		3
Elective		3
Elective		3
Term Hours		9
Total Hours:		121