Understanding the Environmental Geosciences Emphasis

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Who will I work with?

Can I get a job?

Students who graduate with good grades and solid letters of recommendation will find it relatively easy to find employment. With a B.S. degree you can expect to work as a laboratory or field technician in the environmental consulting, mining, forestry, and petroleum industries. This work may involve sample collection, sample analysis, interacting with clients, and technical report writing. Opportunities also exist in government regulatory agencies like the U.S. or Illinois EPA, as well as with non-profit organizations dedicated to environmental conservation and protection.

Check out the link below to see the NIU Career Services list of career information for geoscience graduates.

We care about your Career Success!

Our Geoscience Career Preparation course will start your professional network of employer connections, and help you develop the professional and technical skills necessary to land the job you want!

Have questions?

Visit our website:

Get answers to your questions:

askgeology@niu.edu

Call us:

815-753-1943

Northern Illinois University is an equal opportunity/affirmative action institution and does not discriminate on the basis of race, color, religion, sex, age, marital status, national origin, disability, status based on the Victims’ Economic Security and Safety Act (VESSA) or status as a disabled or Vietnam-era veteran. Further, the Constitution and Bylaws of Northern Illinois University provides for equal treatment regardless of political views or affiliation and sexual orientation.
Why choose the Environmental Geosciences emphasis?

Students should pick an emphasis because of their interests. Taking classes that challenge and excite you will give you a better chance of doing well. Our curriculum is designed so that if you do well in your studies, you will be well prepared for employment, regardless of which emphasis you choose.

This Emphasis Gives You Flexibility

The Environmental Geosciences Emphasis is designed for students who have interests beyond earth science. Choose this emphasis if you want to study chemistry, anthropology, biology, geography, or some other science in addition to earth science. This emphasis is designed to help you easily get a minor in these other disciplines.

When choosing, consider these things:

1) There is greater flexibility to study other sciences in this emphasis. In place of geology electives you take more courses in some other science of your choosing.
2) This emphasis requires a 4-week summer field course that is taught at NIU.
3) There are fewer math, physics and chemistry requirements in this emphasis.
4) Some graduate programs in geology may look less favorably on applicants in this emphasis because many graduate programs expect students to have taken calculus, physics and chemistry as part of their undergraduate curriculum.

How do I get admitted?

There are no special requirements for admission to the B.S. program in Geology and Environmental Geosciences. Use the link below to see NIU's admission requirements.

http://www.niu.edu/admissions/index.shtml

Transfer students should work hard to finish their associates degree, and to complete one semester of calculus and chemistry before applying. You can be admitted without this, but doing it will make it much easier to complete your NIU requirements in only 2 years. Use the link below to make sure the courses you're taking will transfer and substitute for NIU courses in our curriculum.

http://www.niu.edu/admissions/transfer/plan/credits/index.shtml

Curriculum for this emphasis

Total Requirements: 64-68 Credit Hours

A) Core Geology Courses (24 credit hours)

GEOL 120 Introductory Geology (3hrs)
GEOL 121 Introductory Geology Lab (1 hr)
GEOL 322 Paleogeography, Paleoclimatology, Paleoeology (4 hrs)
GEOL 325 Solid Earth Composition (4 hrs)
GEOL 330 Global Cycles (4 hrs)
GEOL 335 Dynamics and Structure of Earth (4hrs)
GEOL 477 Field Methods in Environmental Geosciences (4 hrs) - taught for 4 weeks between spring and summer terms

B) Upper Division Electives (must total at least 20 hrs)

Geology: 9-12 hours of electives at the 300/400 level, at least 9 hours of which must be in courses other than GEOL 489 Undergraduate Research, GEOL 498 Senior Thesis, or GEOL 499H Senior Thesis - Honors.

Example GEOL electives include:

GEOL 402 Sedimentology
GEOL 405 Stratigraphy
GEOL 407 Global Climate Change through Time
GEOL 412 Petrology
GEOL 420 Geochemistry of the Earth's surface
GEOL 421 Environmental Geochemistry
GEOL 425 Engineering Geology
GEOL 442 Geomorphology
GEOL 444 Economic Geology
GEOL 468 Geomicrobiology
GEOL 485 Volcanology
GEOL 490 Hydrogeology
GEOL 491 Geophysical Well Logging
GEOL 493 Geophysical Well Logging
GEOL 496 Geophysics

C) Allied Science and Math (18-23 credit hours)

Mathematics (4-7 hrs)

EITHER

MATH 229 Calculus I (4 hrs), and
MATH 230 Calculus II (4 hrs)

OR

MATH 211 Calculus for Business and Social Science (3 hrs), and
STAT 301 Elementary Statistics (3 hrs)

Chemistry (8 hrs)

CHEM 210 General Chemistry I (3 hrs)
CHEM 212 General Chemistry Lab I (1 hr)
CHEM 211 General Chemistry II (3 hrs)
CHEM 213 General Chemistry Lab II (1 hr)

Other Laboratory Sequence (6-8 hrs)

Any one of the two-semester lab science sequences (except CHEM and GEOL) that satisfies the College lab science requirements for the B.S. degree, as listed in the Undergraduate Catalog. Selected in consultation with an advisor. Usually from areas like BIOS, GEOG, PHYS, and ANTH according to the student's cross-disciplinary interests.

Cross-Disciplinary Area: 9-12 hours of electives at the 300/400 level, selected to match student interests in consultation with an undergraduate advisor. Commonly from departments such as Anthropology, Biological Sciences, Chemistry, Economics, Environmental Studies, Geography, Physics, or Political Science. (Note that some courses may require additional prerequisites that are not included here.)