

Transfer Guide Leading to a Bachelor's of Science in Geology and Environmental Geosciences

All degree requirements are subject to the provisions and notices in the [NIU Undergraduate Catalog](#). Information is valid through **November 2015**.

Courses Needed Prior to Transfer (if student is transferring to NIU with general education requirements complete):

- Mathematics preparatory to calculus, MATH 110 or 155 (3)
- Introductory physical geology (or earth science) with laboratory, GEOL 120 (3) and 121 (1)
- Introductory chemistry (CHEM 110) preferably followed by first semester college chemistry with laboratory, CHEM 210 (3) and 212 (1).

Courses Highly Recommended Prior to Transfer:

- First semester calculus, MATH 229 (4) (MATH 211 (3) may substitute in Environmental Geosciences).
- Second semester chemistry, CHEM 211 (3) and 213 (1).
- One year of either college physics or biology, appropriate for the emphasis and focus desired.
- For earth science education emphasis ONLY: introductory astronomy, GEOL 103 (3) or PHYS 162 (3), and introductory meteorology, GEOG 105 (3) and 106 (1).

Junior Year, at NIU:

Geology core courses, offered only in semester shown:

Fall:

*Paleogeography, Paleoclimatology, Paleoecology, GEOL 322(4)

*Solid Earth Composition, GEOL 325 (4)

Spring:

*Global cycles, GEOL 330 (4)

*Dynamics and Structure of Earth, GEOL 335 (4)

Plus:

*Electives in GEOL and/or co-disciplinary area

*Chemistry, math, and science requirements not completed in freshman and sophomore years.

Senior Year, at NIU:

- Courses within the department and/or allied departments to complete requirements for the selected emphasis.
- Any remaining required math/science requirements.
- Elective courses to complete 120 hours required for graduation.

Summer (May-June)

Geology Emphasis: Geologic Field Work, GEOL 478 and 479 (6), in Wyoming and S. Dakota: six weeks.

Environmental Geosciences Emphasis: Field Methods, GEOL 477 (4), in central and northern Illinois: four weeks.

About the Department

The Department of Geology and Environmental Geosciences offers degree programs at both the undergraduate (B.S.) and graduate (M.S. and Ph.D.) level. The undergraduate major offers three emphases:

- **Geology Emphasis:** A comprehensive, in-depth study of earth science, which includes upper-division electives in geology plus a summer six-week geology field course in the western U.S.
- **Environmental Geosciences Emphasis:** A broad study of environmental geology and environmental science, which includes upper-division electives in both geology and a chosen co-disciplinary area, plus a summer four-week environmental field methods course based at NIU and our environmental field site in Ogle County.
- **Earth Science Education Emphasis:** A solid science foundation, which includes the geology core classes as well as physics, chemistry, and biology classes and prepares students for Illinois teacher licensure in Earth and Space Science at the secondary level. This emphasis also includes science specific teaching methodology courses. For curricular details, please visit our website at: www.niu.edu/geology/certification. The emphasis is difficult to complete within the 2+2 time frame; interested students should contact the emphasis adviser as soon as possible (<http://www.niu.edu/sstc/>).

From your entry into the B.S. program, you will work closely with your program emphasis adviser to ensure that you make appropriate course choices and effective progress.

Faculty:

The Department of Geology and Environmental Geosciences has 11 full-time faculty members and approximately 40 graduate students and 50 undergraduate majors, an excellent student/faculty ratio allowing close interaction and dedication to our students' academic success. Geology courses for majors are taught by geology faculty who hold Ph.D.'s in their specializations and are committed to both teaching and research. Undergraduates are encouraged to share in research activities through senior theses, independent study projects, and the University's Office of Student Engagement and Experiential Learning (OSEEL).

Careers in Geology and Environmental Geosciences

- In 2012 the U.S. Bureau of Labor Statistics projected a 16% growth in geoscience jobs through 2022.
- In 2012 Forbes Magazine listed geology as #7 on their list of the 15 most valuable majors, and in 2014 the Washington Post listed geology as one of the “least underemployed” majors.
- Salaries for geoscientists vary with the economic climate, with employment sector (e.g., private vs. public; environmental vs. petroleum), and with individual skills and knowledge. Since 2012, reports from the American Geosciences Institute, the American Association of Petroleum Geologists and the U.S. Bureau of Labor Statistics suggest most B.S. graduates find starting salaries in the \$30,000 to \$60,000 range.

For more information:

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Visit our website: www.niu.edu/geology

For information on the earth science education emphasis and teacher licensure, contact the department's coordinator for these programs: <http://www.niu.edu/sstc/>