

Morris Campus

Geology B.A.

Division of Science & Mathematics - Adm

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- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2021
- Required credits to graduate with this degree: 120
- Required credits within the major: 60
- This program requires summer terms.
- Degree: Bachelor of Arts

Geology offers courses that satisfy a variety of requirements, as well as a curriculum leading to a bachelor of arts degree in geology.

Objectives The mission of the geology discipline is provide a firm foundation in the geological and cognate sciences for students interested in the investigation and solution of geologic problems; to prepare students for graduate study in the geosciences; to provide the necessary background in earth science for those who plan to teach in this field at the secondary level; and to serve those in other professional or interdisciplinary programs who need a basic understanding of the geosciences.

The geology curriculum serves the liberal arts by offering courses that allow students to gain a better appreciation of the natural environment; increase their awareness of the impact of dynamic geological events and processes on society; help them recognize the importance of Earth resources, and introduce them to the methodologies and reasoning used in the sciences.

The geology curriculum is designed to provide students with a understanding of the evolution of the Earth as a planetary body and the fundamental geologic principles used to reconstruct Earth history; how to recognize geologic features and Earth materials, and to infer the processes responsible for their formation; and provide the requisite skill set to solve geologic problems. The curriculum seeks to help students hone their observation skills in order to interpret geology in a natural setting, emphasizing the integration of knowledge acquired in the classroom. The curriculum stresses familiarization with current geologic literature, and encourages critical thinking in both approaching research problems and evaluating the literature. The geology program encourages students to pursue independent research projects and has an outstanding track record of student involvement in research. The curriculum is also designed to help students develop and enhance their oral and written communication skills. The curriculum prepares students to enter graduate school and/or find careers as professional geologists.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

General Requirements

All students are required to complete general University and college requirements. For more information, see the [general education requirements](#).

Program Requirements

Students are required to take 2 semester(s) of any second language.

Up to 8 credits of coursework with a grade of D or D+ may be used to meet the major requirements if offset by an equivalent number of credits of A or B. Courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the major to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of "F" are included in GPA calculation until they are replaced.

Required Courses

- [CHEM 1101](#) - General Chemistry I [SCI-L] (5.0 cr)
- [CHEM 1102](#) - General Chemistry II [SCI-L] (5.0 cr)
- [GEOL 1101](#) - Physical Geology [SCI-L] (4.0 cr)



GEOL 2101 - Mineralogy and Crystallography [SCI-L] (4.0 cr)
GEOL 2111 - Igneous and Metamorphic Petrology [SCI-L] (4.0 cr)
GEOL 2121 - Sedimentology and Stratigraphy [SCI-L] (4.0 cr)
GEOL 3101 - Structural Geology [SCI-L] (4.0 cr)
GEOL 4901 - Geology Senior Seminar (1.0 cr)
GEOL 4902 - Geology Senior Seminar Presentations (1.0 cr)
MATH 1021 - Survey of Calculus [M/SR] (4.0 cr)
or MATH 1101 - Calculus I [M/SR] (5.0 cr)
Completion of approved Geology Field Camp (6 cr)

Elective Courses

Take 10 or more credit(s) from the following:

- GEOL 2131 - Geomorphology [SCI] (4.0 cr)
- GEOL 2141 - Glacial and Quaternary Geology [SCI] (4.0 cr)
- GEOL 2161 - GIS and Remote Sensing [SCI] (4.0 cr)
- GEOL 3001 - Global Tectonics [SCI] (4.0 cr)
- GEOL 3011 - Earth Resources [ENVT] (4.0 cr)
- GEOL 3012 - Global Change: Past and Present (4.0 cr)
- GEOL 3111 - Introduction to Paleontology [SCI-L] (4.0 cr)
- GEOL 3401 - Geophysics [SCI] (4.0 cr)
- GEOL 3501 - Hydrology [SCI] (4.0 cr)
- GEOL 3601 - Introduction to Geochemistry [SCI] (4.0 cr)
- GEOL 4130 - Advanced Geomorphology (4.0 cr)
- GEOL 4140 - Advanced Glacial and Quaternary Geology (4.0 cr)
- GEOL 3993 - Directed Study (1.0 - 5.0 cr)
or GEOL 4993 - Directed Study (1.0 - 5.0 cr)
- Recommended for graduate studies:
 - GEOL 2151 - Historical Geology: Earth History and Changing Scientific Perspectives [SCI-L] (4.0 cr)

Additional Electives

Courses must be chosen in consultation with a geology adviser.

Take 7 or more credit(s) from the following:

- BIOL 1xxx
- BIOL 2xxx
- BIOL 3xxx
- BIOL 4xxx
- CHEM 1xxx
- CHEM 2xxx
- CHEM 3xxx
- CHEM 4xxx
- CSCI 1xxx
- CSCI 2xxx
- CSCI 3xxx
- CSCI 4xxx
- MATH 1xxx
- MATH 2xxx
- MATH 3xxx
- MATH 4xxx
- NSCI 1xxx
- NSCI 2xxx
- NSCI 3xxx
- NSCI 4xxx
- PHYS 1xxx
- PHYS 2xxx
- PHYS 3xxx
- PHYS 4xxx
- STAT 1xxx
- STAT 2xxx
- STAT 3xxx
- STAT 4xxx
- ESCI 2xxx
- ESCI 3xxx