

### Duluth Campus

## Geological Sciences Minor

*D Earth & Environmental Sci*

### Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2019
- Required credits in this minor: 26 to 29

The geological sciences minor enhances the student's understanding of and familiarity with earth materials and processes, and provides valuable background for many environmental careers and applications.

## Program Delivery

This program is available:

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

## Minor Requirements

### Minor Core (3-4 cr)

#### Minor Core

- EES 1110 - Geology and Earth Systems [LE CAT, NAT SCI, SUSTAIN] (4.0 cr)
- or EES 1610 - Oceanography [LE CAT, NAT SCI, SUSTAIN] (3.0 cr)
- or GEOG 1414 - The Physical Geography [LE CAT, NAT SCI, SUSTAIN] (4.0 cr)

### Additional Core (15 cr)

#### Minor Core

- ESCI 2010 *{Inactive}* (4.0 cr)
- EES 2110 - Reconstructing Earth's Climate History (4.0 cr)
- EES 2120 - The Earth's Dynamic Interior (3.0 cr)
- EES 2311 - Mineralogy (4.0 cr)

### Chemistry Requirement (5 cr)

Take CHEM 1113 only or both CHEM 1153 and CHEM 1154.

- CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT, NAT SCI] (5.0 cr)
- or CHEM 1153 - General Chemistry I [LE CAT, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT, NAT SCI] (1.0 cr)

### Electives (3-5 cr)

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- EES 3202 - Energy Resources (3.0 cr)
- EES 2312 - Petrology (4.0 cr)
- EES 3420 - Sedimentology and Stratigraphy (4.0 cr)
- EES 4450 - Structural Geology (4.0 cr)
- GEOL 5240 *{Inactive}* (4.0 cr)
- EES 5250 - Hydrogeology (4.0 cr)