

# Geology

College of Natural Science and Mathematics  
Department of Geology and Geophysics  
907-474-7565  
www.uaf.edu/geology/

## B.S. Degree

Minimum Requirements for Degree: 130 credits

Graduates in geology have broad backgrounds in the earth sciences and firm foundations in mathematics, physics and chemistry. There are many concentrations available in the geological sciences, and the suggested curricula are intended to be flexible enough to allow students to pursue their own emphasis in the junior and senior years. The bachelor's degree prepares students for positions with industry or government or for graduate studies.

## Major — B.S. Degree

1. Complete the general university requirements. (See page 124. As part of the core curriculum requirements, complete MATH F200X, CHEM F105X and F106X.)
  2. Complete the B.S. degree requirements. (See page 129. As part of the B.S. degree, complete: STAT F200X or F300; PHYS F103X and F104X, or PHYS F211X and F212X.)
  3. Complete the following program (major) requirements: \*

GEOS F101X—The Dynamic Earth .....	4
GEOS F112X—The History of Earth and Life.....	4
GEOS F213—Mineralogy .....	4
GEOS F214—Petrology and Petrography.....	4
GEOS F225—Field and Computer Methods in Geology .....	2
GEOS F304—Geomorphology .....	3
GEOS F314—Structural Geology .....	4
GEOS F315W—Paleobiology and Paleontology .....	4
GEOS F322—Stratigraphy and Sedimentation.....	4
GEOS F351W—Field Geology** .....	8
GEOS F430—Statistics and Data Analysis in Geology .....	3
MATH F201X—Calculus II .....	4
Electives.....	open
  4. Complete 15 credits of upper-division GEOS courses or upper-division courses as approved by the undergraduate advisor.\*
  5. Minimum credits required .....130
- \* Student must earn a C grade or better in each GEOS course and in all courses that fulfill requirement 4.
- \*\* GEOS F351 is offered at UAF when there is sufficient demand. In years when GEOS F351 is not offered (decision made early in fall semester), students are required to take a 6-credit field geology class at another institution. The geology and geophysics undergraduate advisor will assist students in placement in a field geology class.
- Studies in geophysics: Students interested in pursuing a program in geophysics are encouraged to pursue a major in geology which includes GEOS F418 and F416 with a minor in physics. Students should consult with the geology department regarding constructing a plan of study.*

## Minor

1. Complete the following:

GEOS F101X—The Dynamic Earth .....	4
Approved GEOS electives .....	12
2. Minimum credits required .....16

## Baccalaureate Core Requirements

All degrees (e.g. B.A., B.S., etc.) require additional courses.  
Refer to specific degree and program requirements.

### COMMUNICATION (9)

Complete the following:

ENGL F111X ..... (3) \_\_\_\_\_  
*ENGL F190H may be substituted.*

Complete one of the following:

ENGL F211X OR ENGL F213X ..... (3) \_\_\_\_\_

Complete one of the following:

COMM F131X OR COMM F141X ..... (3) \_\_\_\_\_

### PERSPECTIVES ON THE HUMAN CONDITION (18)

Complete all of the following four courses:

ANTH F100X/SOC F100X ..... (3) \_\_\_\_\_  
ECON F100X OR PS F100X ..... (3) \_\_\_\_\_  
HIST F100X ..... (3) \_\_\_\_\_  
ENGL/FL F200X ..... (3) \_\_\_\_\_

Complete one of the following three courses:

ART/MUS/THR F200X, HUM F201X OR ANS F202X ..... (3) \_\_\_\_\_

Complete one of the following six courses:

BA F323X, COMM F300X, JUST F300X, NRM F303X,  
PS F300X OR PHIL F322X ..... (3) \_\_\_\_\_

OR complete 12 credits from the above courses PLUS

- two semester-length courses in a single Alaska Native language or other non-English language OR
- three semester-length courses (9 credits) in American Sign Language taken at the university level.

### MATHEMATICS (3)

Complete one of the following:

MATH F103X, MATH F107X, MATH F161X OR  
STAT F200X ..... (3 – 4) \_\_\_\_\_  
*\* No credit may be earned for more than one of MATH F107X or F161X.*

OR complete one of the following\*:

MATH F200X, MATH F201X, MATH F202X,  
MATH F262X OR MATH F272X ..... (4) \_\_\_\_\_  
*\*Or any math course having one of these as a prerequisite.*

### NATURAL SCIENCES (8)

Complete any two (4-credit) courses:

ATM F101X ..... (4) \_\_\_\_\_  
BIOL F100X ..... (4) \_\_\_\_\_  
BIOL F103X ..... (4) \_\_\_\_\_  
BIOL F104X ..... (4) \_\_\_\_\_  
BIOL F111X ..... (4) \_\_\_\_\_  
BIOL F112X ..... (4) \_\_\_\_\_  
BIOL F115X ..... (4) \_\_\_\_\_  
BIOL F116X ..... (4) \_\_\_\_\_  
CHEM F100X ..... (4) \_\_\_\_\_  
CHEM F103X ..... (4) \_\_\_\_\_  
CHEM F104X ..... (4) \_\_\_\_\_  
CHEM F105X ..... (4) \_\_\_\_\_  
CHEM F106X ..... (4) \_\_\_\_\_  
GEOG F205X ..... (4) \_\_\_\_\_  
GEOS F100X ..... (4) \_\_\_\_\_  
GEOS F101X ..... (4) \_\_\_\_\_  
GEOS F112X ..... (4) \_\_\_\_\_  
GEOS F120X ..... (4) \_\_\_\_\_  
GEOS F125X ..... (4) \_\_\_\_\_  
MSL F111X ..... (4) \_\_\_\_\_  
PHYS F102X ..... (4) \_\_\_\_\_  
PHYS F103X ..... (4) \_\_\_\_\_  
PHYS F104X ..... (4) \_\_\_\_\_  
PHYS F115X ..... (4) \_\_\_\_\_  
PHYS F116X ..... (4) \_\_\_\_\_  
PHYS F175X ..... (4) \_\_\_\_\_  
PHYS F211X ..... (4) \_\_\_\_\_  
PHYS F212X ..... (4) \_\_\_\_\_  
PHYS F213X ..... (4) \_\_\_\_\_

### LIBRARY AND INFORMATION RESEARCH (0 – 1)

Successful completion of library skills competency test OR  
LS F100X or F101X prior to junior standing ..... (0 – 1) \_\_\_\_\_

### UPPER-DIVISION WRITING AND ORAL COMMUNICATION (0)

Complete the following:

Two writing intensive courses designated (W) ..... (0) \_\_\_\_\_  
One oral communication intensive course designated (O) ..... (0) \_\_\_\_\_  
OR two oral communication intensive courses designated (O/2), at the upper-division level (see degree and/or major requirements) ..... (0) \_\_\_\_\_

TOTAL CREDITS REQUIRED ..... 38 – 39