

# Geology

College of Science, Engineering 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. There are about 40 professional geoscientists in residence on campus and graduate students normally participate in the ongoing research of these professionals. Teaching and research assistantships are available to graduate students in many of these areas.

## Major—B.S. Degree

1. Complete the general university requirements (page 106. As part of the core curriculum requirements, complete MATH 200X, CHEM 105X and 106X.)
2. Complete the B.S. degree requirements (page 112. As part of the B.S. degree, complete: STAT 200 or 300; PHYS 103X and 104X, or PHYS 211X and 212X.)
3. Complete the following program (major) requirements: \*  
GEOS 101X—The Dynamic Earth ..... 4

GEOS 112X—The History of Earth and Life.....	4
GEOS 213—Mineralogy.....	4
GEOS 214—Petrology and Petrography.....	4
GEOS 225—Field and Computer Methods in Geology.....	2
GEOS 304—Geomorphology.....	3
GEOS 314—Structural Geology.....	4
GEOS 315W—Paleobiology and Paleontology.....	4
GEOS 322—Stratigraphy and Sedimentation.....	4
GEOS 351W—Field Geology**.....	6
GEOS 430—Statistics and Data Analysis in Geology.....	3
MATH 201X—Calculus.....	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 351 is offered at UAF when there is sufficient demand. In years when GEOS 351 is not offered (decision made early in fall semester), students are required to take a 6-credit field geology class at another institution. The Department of Geology and Geophysics will offer financial assistance to geology majors when GEOS 351 is not offered to attend an approved field camp at another institution. The geology and geophysics undergraduate advisor will assist students in placement in a field geology class and will inform the department head about students requiring financial aid.

Studies in geophysics: Students interested in pursuing a program in geophysics are encouraged to pursue a major in geology which includes GEOS 418 and 416 with a minor in physics. Students should consult with the geology department regarding constructing a plan of study.

## Minor

1. Complete the following:  
GEOS 101X—The Dynamic Earth ..... 4  
Approved GEOS electives..... 12
2. Minimum credits required ..... 16

## General University Requirements

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

### COMMUNICATIONS (9)

Complete the following:

ENGL 111X.....	(3)	_____
ENGL 211X OR 213X.....	(3)	_____
COMM 131X OR 141X.....	(3)	_____

### LIBRARY & INFORMATION SKILLS (0–1)

Complete the following:

LS 100X OR 101X.....	(0-1)	_____
OR Successful completion of library skills competency test.		

### PERSPECTIVES ON THE HUMAN CONDITION (18)

Complete either the following six courses:

ANTH 100X OR SOC 100X.....	(3)	_____
ECON/PS 100X.....	(3)	_____
HIST 100X.....	(3)	_____
ART/MUS/THR 200X, HUM 201X OR ANS 202X.....	(3)	_____
ENGL/FL 200X.....	(3)	_____
PHIL 322X, NRM 303X, COMM 300X, PS 300X OR JUST 300X.....	(3)	_____

OR Complete 12 cr from the above list PLUS two semester-length courses in a single non-English or Alaska Native language at the university level OR three semester-length courses (9 cr) in American Sign Language.

## MATHEMATICS (3–4)

Complete 3-4 credits from the following:

MATH 107X.....	(3)	_____
OR MATH 131X (except for BBA).....	(3)	_____
OR MATH 161X.....	(3)	_____
MATH 200X.....	(4)	_____
MATH 201X.....	(4)	_____
MATH 202X.....	(4)	_____
MATH 262X.....	(4)	_____
MATH 272X.....	(3)	_____

NOTE: Additional 3 cr of math needed for degree requirements.

## NATURAL SCIENCES (8)

Complete 8 credits from the following:

ATM 101X.....	(4)	_____
BIOL 103X OR 104X.....	(4)	_____
BIOL 105X–106X.....	(8)	_____
BIOL 111X–112X.....	(8)	_____
CHEM 100X.....	(4)	_____
CHEM 103X–104X.....	(8)	_____
CHEM 105X–106X.....	(8)	_____
GEOG 205X.....	(4)	_____
GEOS 100X OR 120X OR 125X.....	(4)	_____
GEOS 101X–112X.....	(8)	_____
MSL 111X.....	(4)	_____
PHYS 102X OR 175X.....	(4)	_____
PHYS 103X–104X.....	(8)	_____
PHYS 211X–212X.....	(8)	_____
PHYS 211X–213X.....	(8)	_____
PHYS 212X–213X.....	(8)	_____