

University of Alaska Fairbanks

Geology and Geophysics, Undergraduate Program in Earth Science (B.A.)

Academic Outcomes Assessment Plan

Mission Statement: UAF and the Department of Geology and Geophysics are committed to providing quality undergraduate education through small classes, close student-faculty relationships and research and scholarly endeavor. Continuous self-examination, flexibility and openness to innovation enhance the quality of education available to students

Goal Statement: The B.A. program in Earth Science strives to produce graduates who: (i) have a broad knowledge in various basic geoscience concepts; (ii) can compete in the job market, especially as teachers; (iii) are able to communicate through effective writing and speaking; and (iv) can think critically about the important scientific issues of the day.

[\[AGC1\]](#)

Intended outcomes/objectives	Assessment criteria and procedures	Implementation
1) Students completing the Earth Science B.A. degree will compare favorably in skills and knowledge with students completing similar courses of study elsewhere.	Graduates, employers and graduate schools will be satisfied with student's knowledge.	Undergraduate exit survey, follow-up surveys of graduates, surveys of employers and graduate schools.
2) Students will be competitive in post-baccalaureate careers in education, graduate school, industry, and government.	The percentage of students in geoscience or educational careers should exceed 66% two years after graduation.	The department will monitor the percentage placement of graduates into various career tracks through alumni questionnaires (Form UAF-GEOS-A1).
3) The curriculum should reflect the current directions in the ever-changing world of geoscience.	75% of all graduates will agree with the statement "My earth science curriculum has prepared me for my current position."	Through surveys of graduating students and recent alumni, the most and least applicable classes will be identified (Form UAF-GEOS-G1). The faculty will meet on an annual basis to assess the curriculum and implement changes as needed. The major employers and other geoscience professionals will be surveyed to get other opinions on the direction of geoscience. This will be done on an informal basis and through an advisory board and through questionnaires (forms UAF-GEOS-E1 and UAF-GEOS-E2).
4) Graduates should be proficient in communicating their knowledge in oral and written format to scientists and the general public.	In the classroom setting, students will be encouraged to research a topic, write a scientific report on that topic and present it to a general audience. Portfolios of student work will be assembled for a sample of student majors.	GEOS 475/675 <i>Communication Skills in the Geosciences</i> is a course that currently is requiring students to write. We will strive to make other "content" geoscience courses "W" or "O" intensive to provide further geoscience options for improving writing techniques.

5) Students should be aware of the current issues and events that earth science impacts.

Students will attend lectures and other seminars in which current topics are addressed and/or be exposed to current topics in “capstone” classes.

GEOS 482, the department seminar, provides a forum for current topics to be presented. The department and program will develop more capstone 400-level classes and encourage the faculty to include assessments of current directions in the geosciences in these courses.

[\[AGC1\]](#)