UNIVERSITY OF ALASKA FAIRBANKS  
Student Learning Outcomes Assessment Plan  
Geophysics Graduate Ph.D. Program  
College of Natural Science and Mathematics

**MISSION STATEMENT:** The Department of Geology & Geophysics educates all levels of students in geological and geophysical principles through research, classroom and field-based instruction. The scholarly and research activities of the department enhance its educational programs to stimulate inquiry and develop learning skills for the next generation of geoscientists.

**GOALS:** To prepare graduates for careers in the geosciences by developing the technical expertise and critical thinking skills necessary to define, solve, and communicate scientific problems.

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| Graduates attain a level of technical ability and knowledge to function as professionals in their discipline. | Students will demonstrate their abilities and progress through presentations, manuscripts, and annual committee meetings. | • Annual progress reports will be reviewed by faculty to assure program goals are being met.  
• List of peer reviewed publications and conference presentations will be compiled and reviewed annually. |
| Doctoral graduates demonstrate that they can independently identify a problem and devise appropriate methods for its solution, contributing original knowledge to that field. | Graduates should demonstrate ability to develop new research ideas.  
Graduates will make significant contributions to the peer-reviewed literature. | • Written thesis proposals will be reviewed by faculty committees (Capstone Project or Thesis Rubric).  
• Oral comprehensive examinations’ quality will be assessed by faculty committees on a revised oral presentation rubric.  
• Thesis defense quality will be assessed by audience and faculty committee (Capstone Project or Thesis Rubric). |
| Communication/presentation skills are consistent with professional standards. | Graduate students will have experience in giving oral presentations at conferences.  
Preparation of peer-reviewed manuscripts and development of research proposals. | • Survey of graduate students and student committees (including oral defenses and exams) will include questions to assess their progress towards the stated objective (Capstone Project or Thesis Rubric).  
• List of peer reviewed publications will be compiled and reviewed annually. |
| Graduates obtain employment. | Students will be employed, continue education in a related field or receive requested mentoring towards employment or continued education. | • Publications and conference presentations will be compiled and reviewed annually.

• We will assess the presentation/writing skills improvement for students who take the optional GEOS 675.

• Graduates will be surveyed when they graduate (Graduate Student Exit Survey and Feedback Seminar).

• Faculty will be surveyed annually regarding recent graduates. |