

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment Plan
Geophysics Graduate M.S. 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.

| Intended Objectives/Outcomes | Assessment Criteria and Procedures | Implementation (what, when, who) |
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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. | <ul style="list-style-type: none"> • Annual graduate committee meetings will include questions to assess student progress toward the stated objective (Grad Program Assessment Form) • Annual progress reports will be reviewed by faculty to assure program goals are being met. |
| Masters graduates have performed research using technical and problem solving skills to contribute to their field. | Graduates will contribute to the peer-reviewed literature and present work at conferences. | <ul style="list-style-type: none"> • Written comprehensive exam results and written thesis proposal will be reviewed by faculty (Capstone Project or Thesis Rubric). • Oral comprehensive examinations' quality will be assessed by audience (if public talk) and faculty committee (Capstone Project or Thesis Rubric). • Thesis defense quality will be assessed by audience and faculty committee (Capstone Project or Thesis Rubric). • Faculty will monitor the progress towards submission of papers or technical reports through the annual graduate student form. Our goal is for masters graduates should have contributed to at least one publication or technical report. |
| Communication/ presentation skills are consistent with professional standards. | Graduate students will have experience in giving oral presentations at conferences. | <ul style="list-style-type: none"> • Survey of graduate students and student committees (including oral defenses and exams) will include questions to assess their progress towards the stated |

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| | <p>They will gain experience preparing peer-reviewed manuscripts and development of research proposals.</p> | <p>objective (Capstone Project or Thesis Rubric).</p> <ul style="list-style-type: none"> ● Faculty will monitor the progress towards submission of paper or technical report. ● List of peer reviewed 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. |
| <p>Graduates obtain employment or continue education in the field following graduation.</p> | <p>Students will be employed or continue education in a related field within one year after graduation or receive requested mentoring towards employment or continued education.</p> | <ul style="list-style-type: none"> ● Graduates will be surveyed (Graduate Student Exit Survey). ● Faculty will be surveyed annually regarding recent graduates. |