

**UNIVERSITY OF ALASKA FAIRBANKS**  
**Student Learning Outcomes Assessment Plan**  
**Geology 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.

Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
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"> <li>• Annual progress reports will be reviewed by faculty to assure program goals are being met.</li> <li>• List of peer reviewed publications and conference presentations will be compiled and reviewed annually.</li> </ul>
Doctoral graduates demonstrate that they can independently identify a problem and devise appropriate methods for its solution, contributing original knowledge to that field.	<p>Graduates should demonstrate ability to develop new research ideas.</p> <p>Graduates will make significant contributions to the peer-reviewed literature.</p>	<ul style="list-style-type: none"> <li>• Written thesis proposals will be reviewed by faculty committees (Capstone Project or Thesis Rubric).</li> <li>• Oral comprehensive examinations' quality will be assessed by faculty committees on a revised oral presentation rubric.</li> <li>• Thesis defense quality will be assessed by audience and faculty committee (Capstone Project or Thesis Rubric).</li> </ul>
Communication/ presentation skills are consistent with professional standards.	<p>Graduate students will have experience in giving oral presentations at conferences.</p> <p>Preparation of peer-reviewed manuscripts and development of</p>	<ul style="list-style-type: none"> <li>• 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).</li> </ul>

	research proposals.	<ul style="list-style-type: none"> <li>• List of peer reviewed publications and conference presentations will be compiled and reviewed annually.</li> <li>• We will assess the presentation/writing skills improvement for students who take the optional GEOS 675</li> </ul>
Graduates obtain employment.	Students will be employed, continue education in a related field or receive requested mentoring towards employment or continued education.	<ul style="list-style-type: none"> <li>• Graduates will be surveyed when they graduate (Graduate Student Exit Survey and Feedback Seminar).</li> <li>• Faculty will be surveyed annually regarding recent graduates.</li> </ul>