



Student Learning Outcome Assessment Plan

Department: Geological Sciences
 Degree Program: MS-Geological Sciences (2009)

Student Learning Outcome (performance, knowledge, attitudes)	Related CWU Strategic Outcome(s) http://www.cwu.edu/strategic-planning/	Method(s) of Assessment (What is the assessment?)*	Who Assessed (Students from what courses - population)**	When Assessed (term, dates)***	Standard of Mastery/ Criterion of Achievement (How good does performance have to be?)
1) Critically interpret published scientific literature; differentiate data from interpretation	1.1.1 Students will achieve programmatic learning outcomes.	Instructor evaluation of literature-based and original research papers, directed reading assignments, oral presentations in class, laboratory, disciplinary and other meetings Faculty mentor evaluation of thesis proposal, defense	Graduate students enrolled in GEOL 501, 502, 503 and other 500-level classes Graduate students enrolled in GEOL 595 and 700	Fall, winter, spring quarters Fall, winter, spring quarters	85% of students get rubric grade of 2 or better on such assignments 95% of students enrolled receive passing grade
2) Design and implement an original research project that develops multiple hypotheses, predictions from hypotheses, data-gathering strategy, data analysis, evaluation of uncertainties, interpretation, and literature review	1.1.1 Students will achieve programmatic learning outcomes. 3.1.2 Sustain the number of courses that include research, scholarship, and creative expression skills as key outcomes.	Instructor evaluation of research proposal, laboratory and field reports Chair and committee member evaluation of thesis research	Graduate students enrolled in GEOL 503 Graduate students enrolled in GEOL 595, 700	Winter quarter Fall, winter, spring quarters	85% of students get rubric grade of 2 or better on such assignments and 20-25% per year receive funding in internal or external competition 20-25% per year receive funding in internal or external competition

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3) Present and interpret results of original research, both orally and in writing, using standard geoscience reference tools, formats and conventions (including statistics, georeferencing, plotting, etc.)	1.1.1 Students will achieve programmatic learning outcomes. 3.1.2 Sustain the number of courses that include research, scholarship, and creative expression skills as key outcomes.	Chair and committee member evaluation of written thesis, final thesis oral presentation (defense) Acceptance of conference abstracts, peer reviewed journal articles or equivalent (e.g ., book chapters)	Graduate students enrolled in GEOL 595, 700 Peer reviewers	Fall, winter, spring quarters Fall, winter, spring, summer quarters	85% of students get rubric grade of 2 or better on such assignments 25% of graduate students present at local, regional or national meeting, 25% successfully publish work in peer-reviewed journal (mostly post graduation)
4) Establish competency in solving quantitative problems, using correct units and significant figures, and representing geologic data on cross-sections and maps.	1.1.1 Students will achieve programmatic learning outcomes.	Instructor evaluation of homework assignments, laboratory exercises, exams	Graduate students enrolled in 500-level electives	Fall, winter, spring quarters	85% of students get rubric grade of 2 or better on such assignments

*Method(s) of assessment should include those that are both direct (tests, essays, presentations, projects) and indirect (surveys, interviews) in nature

**Data needs to be collected and differentiated by location (Ellensburg campus vs University Centers) and modality (face-to-face, online)

***Timing of assessment should ideally be at different transition points of program (i.e., admission, mid-point, end-of-program, post-program)

Assessment Cycle

Analysis and Interpretation: December
Improvement Actions: Completed by June
Dissemination: Completed by June

Year SLOs	15-16	16-17	17-18	18-19	19-20	20-21
1	x	x			x	
2			x	x		x
3			x	x		x
4	x	x			x	

Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Chris Mattinson	Graduate Program Coordinator	mattinson@geology.cwu.edu	509-963-1628
Carey Gazis	Chair	cgazis@geology.cwu.edu	509-963-2820