



Student Learning Outcome Assessment Plan

Department: Chemistry  
Degree Program: MS-Chemistry

Student Learning Outcome (performance, knowledge, attitudes)	Related CWU Strategic Outcome(s) <a href="http://www.cwu.edu/strategic-planning/">http://www.cwu.edu/strategic-planning/</a>	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. Master and apply technical information from graduate level courses, and independently perform advanced experimental techniques and data analysis.	1.1.1 Students will achieve programmatic learning outcomes.	Grades in relevant courses  Evaluations by committee members of student written proposal and thesis  Graduate exit survey	All Chemistry graduate students	Quarterly for classes  Yearly for proposal and thesis, and exit survey	Graduates meet or exceed a 3.0 cumulative GPA.  Standard evaluation forms from every committee member judging proposal and thesis. Obtain a 3 or above (5 max) on relevant criteria.  MS graduate exit survey: mean ranking of 3 or above on relevant items.
2. Write and speak clearly in the language and style of the discipline.	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.	Grades in relevant courses (CHEM 505 and other grad classes)  Evaluation by committee members of student written proposal and thesis  Evaluation by committee members of student proposal defense and thesis defense  Number of student presentations at local/regional/national meetings (from our SOURCE	All Chemistry graduate students	Quarterly for classes  Yearly for proposal and thesis, and exit survey	Mean GPA for graduate students in relevant courses is at least 3.0.  Evaluation of proposals and theses by committee members: Written: Obtain 3 or above (5 max) on relevant criteria on evaluation forms. Oral: Obtain 3 or above (5 max) on relevant criteria on thesis defense evaluation forms.  At least half of the graduate students have given presentations at meetings.  At least half of the graduate students have submitted or plan submissions of peer reviewed journal articles.

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		pres. records and exit survey† question 4)  Number of planned and submitted manuscripts for peer review (from Exit survey† question 5b)			
3. Demonstrate critical thinking skills that utilize qualitative and quantitative problem solving.	1.1.1 Students will achieve programmatic learning outcomes.	Grades in relevant courses  Evaluations by committee members of student written proposal and thesis	All Chemistry graduate students	Quarterly for classes  Yearly for proposal and thesis	Mean GPA for graduate students in relevant courses is at least 3.0.  Standard evaluation forms from every committee member judging proposal and thesis. Obtain a 3 or above (5 max) on item #3.
4. Retrieve and critically analyze chemical literature.	1.1.1 Students will achieve programmatic learning outcomes.	Course grades in CHEM 505, 589, and 700  Evaluations by committee members of student written proposal and thesis	All Chemistry graduate students	Quarterly for classes  Annual review of student proposals and theses.	Mean GPA for graduate students in relevant courses is at least 3.0.  Standard evaluation forms from every committee member judging written proposal and thesis. Obtain a 3 or above (5 max) on item #4.
5. Practice health and safety protocols that are integral to the discipline.	1.1.1 Students will achieve programmatic learning outcomes.	{not included on evaluation forms} ??- Evaluations by committee members of student written proposal  Graduate exit survey	All Chemistry graduate students	Annual review of student proposals and exit surveys-	Obtain a mean ranking of 3 or above on item #5 on committee members' evaluation forms for written proposal  MS graduate exit survey: mean ranking of 3 or above on relevant items.

\*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)

rev. 11/14

### 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	X	X	X
2				X		
3	X				X	
4		X				X
5			X			

### Assessment Oversight

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