Central Washington University  
Assessment of Student Learning  
Program Report

Academic Year of Report:  
2013-2014
College or Support Area:  
College of the Sciences
Department or Program:  
Resource Management (REM)

1. What student learning outcomes were assessed this year, and why?

This is the sixth year we have operated with assessment goals (approved December 2007). No substantial feedback or assessment recommendations were received following our 2010, 2012 or 2013 reports (due to satisfactory assessment scores and our need to conduct both performance reporting and our five year program review, we suspended assessment for 2010-2011). A narrative outlining assessment activities was included in our self study for the five year review, though we similarly received minimal feedback. Our assessment outcomes and results have changed very little. As budget developments and other factors have temporarily contributed to a somewhat downsized program over the last couple of years, changes in quantitative measures involving a smaller overall number of students (n=10-16) continue to complicate assessment.

2. How were they assessed? See previous Student Learning Outcome Assessment Plan.

3. What was learned?  See Goals 1 through 6 below.

4. What will the department or program do as a result of that information?

Changes to the REM Program are reported to the Program Faculty and Affiliate Faculty through faculty meetings organized by the Program Co-directors throughout the academic year. Beginning in Fall 2012, we began reviewing and addressing outcomes of our five year review, starting with changes to teaching teams and course content that reflect the expertise and interests of new hires. During Fall-Winter 2013 and Spring 2104 we conducted a comprehensive, program-wide discussion regarding curricular changes, including: 1) a review and revitalization of program and core course objectives; and 2) possible changes to core courses, including content and credit options. Discussion of two more core courses and syllabi updates were completed this quarter Fall 2014. New teams of team teachers and syllabi will be in use 2015-2016.

Student Learning Outcome Goal 1: Students will demonstrate an ability to effectively communicate about REM issues. This goal has two methods of assessment. These two are listed below with their methods, targeted criterion of achievement, and data from the period of review:

A) Oral presentations: 75-100% of students earn 80% of possible points on rubric including coverage of material and effective delivery in REM 501, 502 and 562. In REM 501 (2012), in the students' first quarter of graduate school 100% (14 students) met the standard for oral presentations. In Winter 2013, 12 out of 16 students (75%) of students met this standard. This number rebounded back to 100% in Spring 2013, where 10 out of 10 of students enrolled in REM 562 (100%) again met the standard for oral presentations. These figures are generally meeting our targets although we continue to improve standards for oral presentation skills.
B) Written papers: 80-100% of students earn 80% of possible points on rubric including coverage of material and English composition in REM 501, 502 and 505. In REM 501 (2013), in the students’ first quarter of graduate school, 12 out of 14 students (85%) met the standard from six written papers. In REM 505, in most students' second quarter of graduate school, 12 of 14 students (85%) met the standard by writing and revising six versions of their thesis proposal, while 80% (13 out of 16) of students enrolled in REM 502 met the standard that quarter. Finally, by Spring 2014 in REM 562, 11 out of 12 (92%) met standards.

The REM faculty have made it a point to have regular writing assignments in all of our core curriculum. We have also been working to encourage students to use the Writing Center, take remedial writing courses, work with writing mentors, and perhaps even work with editors as needed. We will continue to explore means for maintaining and improving student writing skills.

Student Learning Outcome Goal 2: Students will propose, perform, & report on significant independent research. This goal has two methods of assessment:

A) Thesis proposal: Proposal completion is holding steady with 12 of 14 REM 505 students demonstrated skills defining their research problem, purpose, significance, literature review & methods. A new combination of REM 505 instructors this year will continue to have students coordinate and work with possible committee chairs as soon as possible to improve proposal work.

B) Master's Thesis: A significant number of students (16) completed thesis defenses (13 will have 2014 degree dates, two will have 2015 dates) (see attached list). The bulk of these students completed their program in three or four years. Completion rates have fluctuated considerably, though have generally increased. Most students have required a significant amount of time beyond their two years of course completion. The rough estimates of completion rates provided below need to be adjusted for first year retention and core course completion. Assistance is needed from the Graduate School to properly track and tie completion rates each year to individual student start dates. These data would be needed to properly assess and compare completion rates over years and between CWU graduate programs.

| REM Program Enrollees, Successful Thesis Defenses & Graduate School Completions |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Enrollees                        | 28    | 24    | 23    | 18    | 18    | 18    | 14    | 14    |
| Successful Defenses             | 17    | 17    | 10    | 14    | 23    | 16    | 10    | 16    |
| Degrees Awarded                 | 17    | 13    | 12    | 18    | 9     | 13    | 19    | 13    |

Student Learning Outcome Goal 3: Students will demonstrate knowledge of U.S. environmental & resource laws & regulations. We almost met our target in this area, where 87% (14 out of 16 students) met this by earning 80% of possible points on an oral presentation and written paper in REM 502 (Winter 2014).

Student Learning Outcome Goal 4: Students will demonstrate knowledge of procedures for environmental analysis. This goal is assessed with written paper(s) and exam(s) in the team taught REM 522, demonstrating knowledge of NEPA and other impact assessment models. Based on evaluations by a new team of faculty, representing three areas of distinct expertise, 88% of students (15 out of 17) met this standard in Spring of 2014.
Student Learning Outcome Goal 5: Students will be able to assess causes, character, affected parties, and resolution of resource-based conflicts. This goal is assessed with oral presentation and written paper(s) in REM 562. For REM 562 students (11 out of 12) 92% met this standard in Spring 2014.

Student Learning Outcome Goal 6: Students will engage in professional activities. This goal has three methods of assessment. These three are listed below with their methods, targeted criterion of achievement, and data from the period of review:

A) Conference attendance: 24% of enrolled 1st through 3rd year students attend a professional conference. This target has been met for several years running. Schedule conflicts and travel budget cuts have kept us from increasing the portion of students attending conferences.

B) Conference presentations and/or publications: 20% of enrolled 1st-3rd year students make a presentation or publish an article in a scholarly venue. This target has been met for several years running and we are hoping that greater adoption of the journal thesis format will increase our publication rate.

C) Applications for research funding: 14% of enrolled 1st-3rd year students apply for CWU or extramural research funding. This target has been met several years running; however, continued limited funding has prevented us from increasing our success rate.

5. What did the department or program do in response to the feedback from last year's assessment report? In answering this question, please describe any changes that have been made to improve student learning based on previous assessment results. Please also discuss any changes you have made to your assessment plan or assessment methods.

Assessment data for 2007-2008 showed quite variable results, while estimates for 2009, 2010 and 2012 and 2013 have generally showed improvements. Scores remain high, either exceeding or very slightly below our target levels. However, a smaller sample of students means these numbers are not precise measures for student or faculty academic success; the smaller our pool of students, the greater the chance that average results are skewed by 1-2 individuals affected by random life events.
Summary of 2013-14 Results

<table>
<thead>
<tr>
<th>Goal</th>
<th>Target (% of students meeting standard)</th>
<th>Observed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (oral presentations)</td>
<td>90%</td>
<td>75-100%</td>
<td>generally met goal</td>
</tr>
<tr>
<td>1 (written papers)</td>
<td>90%</td>
<td>80-100%</td>
<td>generally met goal</td>
</tr>
<tr>
<td>2 (thesis proposal)</td>
<td>90%</td>
<td>100%</td>
<td>met goal</td>
</tr>
<tr>
<td>2 (thesis completion)</td>
<td>completion</td>
<td>10</td>
<td>sustained</td>
</tr>
<tr>
<td>3 (law &amp; policy knowledge)</td>
<td>90%</td>
<td>87%</td>
<td>slightly below goal</td>
</tr>
<tr>
<td>4 (analysis knowledge)</td>
<td>90%</td>
<td>83%</td>
<td>slightly below goal</td>
</tr>
<tr>
<td>5 (conflict/res. knowledge)</td>
<td>90%</td>
<td>100%</td>
<td>met goal</td>
</tr>
<tr>
<td>6 (conference attendance)</td>
<td>25%</td>
<td>24%</td>
<td>slightly below goal</td>
</tr>
<tr>
<td>6 (presentation/publication)</td>
<td>10%</td>
<td>20%</td>
<td>met goal</td>
</tr>
<tr>
<td>6 (funding application)</td>
<td>10%</td>
<td>14%</td>
<td>met goal</td>
</tr>
</tbody>
</table>

Due to continued turn-over in faculty leading REM core courses, new teams of instructors are still working on developing more concrete criteria for Goals 4, & 5. Most REM faculty still remain ambivalent toward the adoption of rubrics (except for presentation in REM 506) and portfolios. We have also revised SLOs to incorporate attitudes or dispositions in addition to the existing knowledge and ability measures. We are anticipating increasing levels of student reflection as part of REM 506. As our five year REM program indicated, resources are still badly needed to maintain outreach with our alumni and conduct useful alumni surveys for assessment purposes.

6. Questions or suggestions concerning Assessment of Student Learning at Central Washington University:

We are wondering if an expert in assessment of graduate level programs will be available to discuss issues of method and resources.

REM Thesis Completions
Summer 2013-Fall 2014

2012

Cannon, Jamie. (Summer). Prioritizing Forest Restoration Treatments Areas Using Decision Support and Geospatial Analysis on the Okanogan-Wenatchee National Forest, Washington, USA. (Hickey)

Jensen, Dawn-Marie. 2012 (Fall). Species Diversity of Biological Soil Crust Lichen and Moss in the Whiskey Dick Mountain Area, Kittitas County, Washington. (Cottrell/Lipton)

Lauver, Eric. 2012 (Summer) Evaluation of Fall Chinook Egg-To-Fry Survival Study Methods in the Priest Rapids Hatchery Discharge Channel. (Lubinski)

Maine, Alexa (Summer). Host Fish Associations of the California floater (*Anodonta californiensis*) in the Yakima River Basin, Washington”. (Arango/Lillquist)
2013

Baughman, Doug (Fall). Experiments to Measure the Effects of Timber Harvesting Equipment on Surface Lithic Scatters. (Hackenberger/Lubinski)

Grant, Travis. (Winter). A Comparison of State and County Management of Public Access and Impacts to Intertidal Zone Biodiversity: A Case Study of Rocky Shore Ecosystems in Island County, Washington. (Gabriel)

Johnson, Kelseyanne. (Winter). The Elwha River Restoration: Landscape Change, Salmon, and Sense of Place. (Barlow)

Lukens, Michael. (Spring). The Roles of Humans and Climatic Variation on the Fire History of Subalpine Meadows, Mt. Rainier National Park (McCutcheon/Walsh)

Mohammed, Hamsa. (Winter). The Social, Economic, Political, and Environmental Disruption of Charcoal Production within the Unique Geopolitics of Sanaag Region in Somaliland. (Lipton)


2014

Buchholz, Kathryn (Fall). Aligning Policy with Perception: Management of Whitewater Rafters within the Tieton River Corridor. (Cohen)

Evans, Krista (Spring). The Middle of Nowhere? Managing Northern Rocky Mountain Ghost towns (Kuhlken)

Ferry, Joy (Fall). Significance Evaluation of the Forgotten Creek Site (45PI0429). (McCutcheon?)


Jones, Sara (Winter). Evaluation of National Register of Historic Places Eligibility Determination at Yakima Training Center, Washington (Hackenberger)

Kassa, Sonja (Fall). The Archaeology of Obsidian Occurrence in Stone Tool Manufacture and Use Along the Mid-Columbia River, Washington. (McCutcheon)
Killsnight, Adriann. (Fall). Am Analysis of Swift Fox (*Vulpes velox*) Occupancy on the Northern Cheyenne Reservation, Montana. (Ernest)

Lewis, Patrick (Fall). Measuring the Cost and Performance of Lithic Industries at the Sunrise Ridge Borrow Pit Site (45PI408). (McCutcheon)

Nielsen, Kari (Spring). Recreational Trails and Geomorphic Hazards in Glacially Conditioned Basins: A Case Study of Many Glacier Valley, Glacier National Park, Montana. (Lillquist)

Oliver, Bethany (Fall). Cultural Resource Management Planning for the Sinlahekin Wildlife Area, WA. (Hackenberger/Revels)

Parks, Raychel (Fall). A Comparative Analysis of Natural and Human Made Rock Habitats for American Pikas (*Ochotona princeps*) along Interstate-90 in the Washington Cascade Range. (Ernest)

Shoaf, Kelli. Perceptions of “Wilderness”: An Examination of Native American Utilization of Traditional Plant Resources and Public Land Management. (Pedersen)

Stanley, Stacy (Winter). Alpine and Other Abandoned Towns along the Great Northern Railroad near Steven’s Pass, Washington, 1890-1930. (Lubinski)

Trammell, Jeff (Spring). An Evaluation of the Yakama Fisheries Kelt Reconditioning Program. (James)

Yost, Anna (Spring). GIS Modeling of Elk Habitat Suitability in the North Cascades of Washington State. (Cottrell/Hickey)

Zimmerman, Kathryn (Summer). Sustainability Policy’s Inherent Dilemmas—Exemplified via Critical Examination of the Las Vegas Metropolitan Sustainability Campaign. (Barlow)