

## 2011-12 Program Assessment Update

Department & Program: BS GEOLOGY

Submitted by: JENNIFER THOMSON

Prepared by Richard Orndorff, Professor and Field Camp instructor

### Geology Field Camp

GEOL 490 is a required disciplinary capstone for the BS degree program and an optional capstone and geology elective for the BA degree program. Students take GEOL 490 in the summer following their senior year. It is a 4-week course taught in the Ruby and Pioneer Mountains of southwestern Montana. Students spend 6 days per week in the field solving problems related to all aspects of geology including mineralogy, petrology, structural geology, sedimentology, and paleontology. They spend evenings and their one day off per week making maps and cross-sections that illustrate their interpretations of surface and subsurface geology. In so doing, they use field and lab skills, tools, and equipment that professional geologists apply to real-world geological problems.

EWU's Geology Field Camp is attended by outside students as well as EWU geology majors. Virtually all BS degree programs in geology in the United States require Field Camp for graduation, but most universities do not offer their own Field Camp. Instead, their students attend Field Camps like ours that admit outside students. Last year (summer, 2011) students came to EWU's camp from the following universities:

- University of Arizona (3 students)
- California Lutheran University
- Clemson University
- State University of New York - Binghamton

Overall there were 15 EWU students and 6 outside students used in this assessment. Two Chinese exchange students attended EWU's 2011 Geology Field Camp, but they were not included in the assessment due to the additional challenge of working in a second language. One of the advantages of admitting students from other universities to our field camp is that it permits us to compare the abilities of our students with the abilities of students from other geology programs. It should be noted that all of the universities listed above have academically selective admission processes, unlike EWU. Please note that three of the four schools are Tier 1 Research Institutions.

## SLO Assessment

SLO assessment is based on students' overall course grades and also on students' grades on their independent final exam. The overall grade is based in part on large multi-day projects based on group mapping, analysis, and geologic interpretation. Therefore the overall grade, while an indicator of the success or failure of our department's ability to achieve desired student learning outcomes, is not solely based on a single student's abilities. Therefore I am also assessing each student's independent final exam result as no collaborative work was permitted on this particular one-day mapping project. Note that students used the tools and equipment available to professional geologists to solve geological problems on both individual and group projects.

For the purposes of assessing success in achieving SLO's, I compare EWU students' results in GEOL 490 with those of students from outside institutions in GEOL 490 for summer, 2011.

1. Student Learning Outcome	2. Strategy or method of measurement	3. Observations gathered from data	4. Actions recommended based on observations	5. Plan and timetable for taking action	6. Overall evaluation of progress on objective
Understand and be able to use the tools and equipment available to professional geologists to solve geological problems.	Overall grade and individual final exam result (see above)	The highest score on the final exam was 95%, achieved by three EWU students and one outside student. The highest overall grade for the class was 94.2%, achieved by an EWU student.	We will continue to prepare our students for successful completion of the Senior Capstone course.	None.	Students from Eastern Washington University outperformed students from other universities on both the independent final exam and the overall course grade. EWU students exceeded outside students by 2.3 percentage points in the final exam average and by 3.1 percentage points in the overall grade average. EWU students' grades demonstrate a high level of understanding and performance in GEOL 490. These results indicate that the EWU Geology Department is successful in achieving the desired student learning outcomes.