Program Level Outcome (PLO) Assessment Report Summary

Program Level Outcomes for Earth Science:

Upon successful completion of the Earth Science program, a student should be able to:

1. apply the scientific method to knowledge acquisition and transfer of information.
2. demonstrate proficiency in the areas of graphical presentation, oral communication and scientific writing.
3. examine the various Earth system components and their complex interaction through inquiry-based, interdisciplinary curricula in the physical sciences.
4. use observing systems, geospatial technology, computers, information processing and data analysis.
5. explain the significance of geological resources and their economic and sustainable value for long-term habitation of the planet by humans.

What we looked at: The PLO applies to GEL 1, GEL 2 and OCN 1. The related SLO, “Given a plate tectonic setting, students will be able to describe a modern-day and historical example.”

What we found: During lecture examinations, students label plate tectonic maps, and match types of plate boundaries to plate names. 42% of students could not identify plate boundary types or match types of plate boundaries to plate names. 34% of students could identify the type of plate boundary but not match types of plate boundaries to plate names. 24% of students could identify the type of plate boundary and match types of plate boundaries to plate names.

The results barely met the minimum expectations. 58% of the students did meet the minimum qualifications. The minimum expectation was that 50% of the students would meet the achievement standard. Students need more work and additional in class activities such as worksheets and maps to improve results.

What our next steps are: We are assigning additional student work and revising the assessment methods, the PLOs will be revised when the Earth Science program becomes a Geology degree program.