

Course or Program Assessment Summary http://academic.cuesta.edu/sloa/docs/Course_and_Program_Assessment_Summary_F_2011.docx

This form can be used to record SLO assessment plans and results for courses or programs. It is recommended that this document be stored on a group drive, or in MyCuesta.

Division: Physical Sciences Program: Geology (EAOS) Date: 3/8/2012 v. 2 2012

Courses in program, or course: _Geology_210, 211, 212, 229, 220, Ocean 210, Ocean 212 (MET 212), Ocean 210 Lab_____

Faculty involved with the assessment and analysis: ___Jeff Grover, Debra Stakes, Anika Clements, and Tom Hollis_____

Course to program outcome mapping document** is completed Yes _X_ No _____

1	Student Learning Outcome Statements <input checked="" type="checkbox"/> Program <input type="checkbox"/> Course	<ol style="list-style-type: none"> 1. Utilize the principles of the scientific method as it relates to modern Earth Science 2. Interpret aspects of global and California geology related to basic geologic principles of plate tectonics. 3. Describe the origin, distribution, and measurement of earthquakes and volcanoes. 4. Evaluate and assess mitigation strategies for geologic hazards. 5. Create, evaluate and interpret maps and other graphical representations 6. Describe physical and chemical earth processes 7. Utilize and evaluate the evidence for Geologic Time and Earth's evolution 8. Differentiate between minerals, igneous, sedimentary and metamorphic rocks and understand basics of their distribution on the solid earth.
2	Assessment Methods Plan (identify assessment instruments, scoring rubrics, SLO mapping diagrams)	Eight multiple choice questions will be given in each of our geology courses at the end of Fall semester 2011. See attached survey. Additional homework assignments during the semester will be used to assess (e.g. Hazard City interactive CD; exams). Ocean 210 will be assessed separately based on Outcomes 1, 2, 3, 5, and 6 only.
3	Assessment Administration Plan (date(s), sample size or selection of course sections, scoring procedures, etc.)	Assessment was completed during finals for all geology 210, 212 and 220 classes. 184 students were assessed. This included students who were enrolled in our geology 229B field course as those students currently or previously enrolled in one of the above mentioned courses.
4	Assessment Results Summary (summarize Data)	Results: SLO #1 = 158/184 correct responses = 86%, SLO #2 = 97/184 correct responses = 53%, SLO #3 = 158/184 correct responses = 86%, SLO #4 = 171/184 correct responses = 93%, SLO #5 = 98/184 correct responses = 53%, SLO #6 = 83/184 correct responses = 45%, SLO #7 = 87/184 correct responses = 47%, SLO #8 = 119/184 correct responses = 65%
5	Discussion of Assessment Procedure and Results, and	Using a standard grade scale for academic class work, our assessment shows that we have "passing grades" in three of the eight student learning outcomes (SLO #'s 1, 3 and 4). SLO # 8 with 65% correct answers was close to an "acceptable, passing grade and outcomes 2, 5, 6 and 7 earned below 60% or what is traditionally a failing grade! As this is the first program

	Effectiveness of Previous Improvement Plans	assessment, it is difficult if not impossible to interpret these results, and comparing these data with the typical student grade distribution may not be valid or appropriate. Having said this, we recognize that SLO's 2, 5, 6 and 7 need either a more accurate assessment tool or more focus in the classroom. We also recognize that differences in vocabulary used in different textbooks might have confused students. This might guide us to improving the primary assessment tool.
6	Recommended Changes & Plans for Implementation of Improvements	We intend to meet with all geology faculty to discuss the results and intend to work towards better communication between faculty regarding program SLOs. We also will discuss the assessment tool and work to improve/clarify each SLO assessment question to better address the topic. Each question needs to be grounded in basic concepts rather than terminology in a single course.
7	Description or evidence of dialog among course or program-level faculty about assessment plan and results	All faculty were provided with the results of the entire survey and their own course results. There is general recognition of the importance of explaining specific processes such as isotopic age dating and incorporating maps and graphs into all courses. End of semester retreat to discuss the assessment is planned for May 2012. We may discuss a before and after survey and some variety of question types. This will also be discussed at the beginning of the Fall 2012 semester.

**Course and program level outcomes are required by ACCJC to be aligned. Each program needs to complete a program map to show the alignment. See examples of completed CPAS and program mapping documents are available at <http://academic.cuesta.edu/sloa>