General Education Annual Course Assessment Form

Course Number/Title: Geology 6 Geology of California
GE Area: B1

Results reported for AY: 17/18
# of sections: 2
# of instructors: 2

Course Coordinator: LeAnne Teruya
E-mail: leanne.teruya@sjsu.edu

Department Chair: Jonathan Miller
College: Science

Instructions: Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be electronically submitted to <curriculum@sjsu.edu>, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by October 1 of the following academic year.

Part 1

To be completed by the course coordinator:

(1) What GELO(s) were assessed for the course during the AY?

GELO 1: Students should be able to use the methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations.

GELO 3: Students should be able to use the methods of science, in which quantitative, analytical reasoning techniques are used.

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

GELO 1: Having completed a lecture discussion on the scientific method and requirements of a scientific theory, students, in small groups, discussed the continental drift hypothesis in terms of the scientific method and whether/why it fell short of a complete scientific theory. The group discussions focused around the shortcomings of continental drift and why it was questioned at the time it was introduced. The GELO was assessed in the form of an exam question in which students had to identify where the hypothesis fell short of developing into a scientific theory, by questioning the explanations given at the time the hypothesis was proposed. 78% of students were able to demonstrate competency in the scientific method and use it to question existing explanations.

GELO 2: Students developed their understanding of the San Andreas fault and how it has reshaped California by using quantitative methods to analyze the relative movement along the fault in the past. Students used the age of recognized offset markers and the distance between them to calculate the average rate of movement over that time. Students had to further demonstrate their dimensional analysis skills by converting their calculated rate in km/Ma, to a scale that they can more easily conceptualize (cm/yr). Students also used the current movement rate along the fault to predict how long it would take for Los Angeles to become a neighboring city to San Francisco. Based on the results, 92% of the students were able to
demonstrate proficiency in quantitative reasoning.

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

GELOs will be assessed early in the semester as well as late in the semester to evaluate how students’ understanding of the concepts have changed over the course of the semester.

Part 2

To be completed by the department chair (with input from course coordinator as appropriate):

(4) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (GELOs), Content, Support, and Assessment? If they are not, what actions are planned?

All sections of Geol 006 are still aligned with the GELO’s.

(5) If this course is in a GE Area with a stated enrollment limit (Areas A1, A2, A3, C2, D1, R, S, V, & Z), please indicate how oral presentations will be evaluated with larger sections (Area A1), or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category (Areas A2, A3, C2, D1, R, S, V, & Z) and, for the writing intensive courses (A2, A3, and Z), documentation that the students are meeting the GE GELOs for writing.