General Education Annual Course Assessment Form

Course Number/Title _______ Geol 103 _______ GE Area ______ Area R ________

Results reported for AY __2014-2015___ # of sections __1___ # of instructors __1________

Course Coordinator: _____Paula Messina_________ E-mail: __paula.messina@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 SLO(s) were assessed for the course during the AY?

GELO 3: Students will be able to apply a scientific approach to answer questions about the earth and environment.

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

Assessments of this SLO were conducted via graded student work via a number of targeted assignments:

• Reading Air Pressure Maps: Using real time data, students learned to read and interpret air pressure maps. Students identified the gradients on the map, then interpreted, areas of high winds, light winds, anticyclonic and cyclonic winds. Students were able to connect air pressure, wind, and resulting weather. Based on graded student work, it is estimated that 75% of the students mastered these concepts and practices.

• Weathering Processes: Simulating hyper weathering conditions in the lab, students conducted an experiment on spheroidal weathering using water and sugar cubes. Students applied the scientific method, by conducting three trials, recording their observations, then analyzing the causes of spheroidal weathering. Students analyzed the effects of irregularities in the sugar cubes on the rate of weathering and pattern of disintegration of the cube structure. After the activity, students were able to properly connect the relationship between surface area and rates of weathering. They were also capable of identifying landscape features (shown in several photographic slides) that likely formed by spheroidal weathering processes. On a written test 88% of students were able to demonstrate competency in identifying real-Earth-based landforms that resulted from the process they modeled themselves.
(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.)

In future course offerings, there will be greater emphasis on the uncertainty of many scientific “facts.” And while some “facts” can be well understood and modeled (e.g., the processes and results of weathering), others—particularly those that exist on very small or large physical and/or temporal scales (e.g., plate tectonics, climate change, evolution, meteor impacts, etc.) are more difficult to studied.

Part 2

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

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

Yes. No actions are planned.

(4) 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 SLOs for writing.

All sections taught are below the enrollment limit for Area R courses and students receive ample feedback on writing from multiple writing assignments. On each assignment, instructors provide detailed editorial and grammatical corrections, as well as general comments related to a grading rubric provided to each student.