Assessment Date: ___Fall 2013________________________

Faculty Name(s): _____Dr. Paul Belasky____________________________________________

1. Course Name and Number:

GEOLOGY 101: Introduction to Geology

2. All Course SLOs from the Course Outline of Record:

SLO1: Demonstrate an understanding of the basic geological processes that shape the earth.
SLO2: Develop a practical understanding of the current paradigm in geology - the theory of plate tectonics and identify the specific relationships between this theory and global geological phenomena such as earthquakes, volcanism, and mountain building through the use of maps and computer animation.
SLO3: Apply principles of geology to the understanding of local geological and environmental hazards that impact lives.
SLO4: List and explain the major steps in the scientific method of investigation, specifically the difference between a speculation, falsifiable hypothesis, and theory. Demonstrate the use of general math skills in the application of the scientific method (i.e., computation, conversion, ratios, rates, etc.)
SLO5: Formulate and write out appropriate hypotheses when presented with observation phenomena.
SLO6: Demonstrate map reading competence through working with topographic and geological maps and aerial photographs.
SLO7: Understand the basic principles of geology and develop an ability to relate scientific concepts regarding the earth to real life situations such as global change, the geological hazards/human risks, and natural resources.
SLO8: Explain and apply the metric system of measurement.
SLO9: Acquire an ability to analyze geological problems in 3-D and visualize scientific concepts.
SLO10: Identify and classify the common earth materials such as minerals, igneous, sedimentary, and metamorphic rocks in the laboratory and during field trips.
SLO11: Explain the concept of geological time ("deep" time) and determine the relative age of rocks through practical exercises.

3. Specific Course SLO(s) assessed as part of this project:

SLO2, SLO4

4. Will this SLO assessment count toward GE Plan A?  _v__Yes  ____ No

If Yes, identify what area: _v__Area I Natural Sciences  ___Area II Social and Behavioral Sciences  ____Area III Fine Arts/Humanities  ___Area IV Language and Rationality  ___Area V Physical Education/Wellness  ___Area VI Intercultural/International Studies
Identify GE SLO(s) assessed as part of this project (see Catalog pages 49-51):

GE SLO1 for Area I

5. Assessment strategy or tool used in the assessment. (Describe below, and if applicable copy/paste any additional related documents at end of this form (i.e. Rubric, score sheet, test questions, essay assignment, etc.)

A questionnaire given to students within the first 6 weeks of the semester 2013. It is attached to but not counted as part of the first quiz students have to take. The questionnaire assesses the student knowledge of the topics pertaining to this student learning outcome. It contains objective, specific questions (matching, multiple choice). To insure objectivity, the students will be able to use Scantron sheets for most of the questions. The students are asked questions that test students’ familiarity with concepts of plate tectonics and types of geological phenomena (e.g., earthquakes, volcanoes, mountain ranges) associated with different plate boundaries. The students were also asked to use fundamental math skills for conversion, and solution of simple rate problems relevant to earth sciences. The same questionnaire was given to students at the end of class (attached to the final exam, but not be counted as part of it). The results are then be compared. The questionnaire given at the end of the semester will also ask if students geographic knowledge and interest in the course subject has increased through the course and by how much (expressed on a scale from 1 to 10 or in terms of percentage).

NOTE: This will usually consist of things you are already using to evaluate student work, i.e. Final Exam questions, Final Essay, Final Presentation or Culminating Project, other Assignments, Portfolio Evaluation, Performance Assessment, Department Testing, Pre and Post Tests, Vendor or Industry Certification Examinations, Indirect Assessments (Student Surveys, Focus Group Discussions, Interviews), etc.

6. Specific aspects of the assessment tool which link up to specific Course SLOs being assessed (i.e. Which specific test questions measured which Course SLOs? Note: May describe with #4 above.):

Questions 1-6 and 12-13 of pre- and post-questionnaire questions link up with SLO 2 and GE SLO 1 in Area I; questions 7-11 link up with SLO4.

7. Results and analysis of the data. (Explain below and if applicable copy/paste any related documents, i.e. spreadsheets with data, at the end of this document.)

The pre- and post- questionnaires was given to GEOL 101 (hybrid class) students and graded using Scantron, compared, and analyzed. Results of the Fall 2013 assessment:

pre-questionnaire - 13 questions; 22 student participants; avg. of 5.6 correct answers; 42.9%

post-questionnaire - avg. 6.7 correct answers; 51.5 %.

Conclusion: there is an increase of almost 20% in student scores. There was a significant increase in scores of 12 students, no significant increase in scores of 6 students, and a significant decrease in scores
of 3 students. The greatest increase is seen in students’ own assessment of their geographic knowledge (38.2% increase, based on a scale of 1 to 10), and their interest in the subject increase by an average of 26.4%

8. Describe any faculty dialogue that occurred as part of the assessment process (i.e. Were results shared at a department meeting? Was there discussion about changing any SLOs? Etc.):

I am the only full-time faculty member of the department. I have discussed assessment results with two adjunct instructors in our department.

9. Next steps (i.e. any planned revisions to curriculum or teaching strategies to promote student success, future assessment plans, etc.):

The SLO’s for the course will be revised in the future in order to reduce their number and facilitate better link-up with the assessment tools.

10. Results of implemented changes, if available at this time:

Please save your finished document in the following format. (Date should be for the semester in which data was collected; same date should be listed at top of this form.)

```plaintext
yyyysemester-sloa-courseid.doc
example: 2013fall-sloa-engl101c.doc
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