**Program Assessment Plan, 2013-2018**

**Department/Program: Geological Sciences\_\_\_\_\_\_\_\_\_\_\_**

During the last two years, we have undergone a re-envisioning of our department’s program. With the aid of a large financial gift, we have redesigned our curriculum from the ground up. The gift provides faculty release time to devote sincere thought and effort to curricular reform. Our next focus is on implementation, and the gift provides for additional reassigned time to ensure that courses are implemented effectively and with assessment embedded throughout. The general arc of our curriculum redesign implementation is below:

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| **Year** | **Phase** | **Responsible Individuals** | **Planning focus** | |
| 2013-14  Year 1 | Design Phase and preparation of curriculum proposals | d’Alessio  Entire faculty | Complete revision to the major and the list of individual course offerings. Begin to design course-level SLOs that align with program SLOs using a knowledge survey approach.  Construct a 5 year plan that defines the periodic and annual assessment activities for the new curriculum for inclusion in the 2014-15 assessment report.  Focus on data analysis strategies. At least 1 faculty workshop on the topic.  3rd Annual Geologic Problem Solving Night. Data collection |
| 2014-15  Year 2 | Final Design Phase | 12 units reassigned time; specific assignments TBD; at least 3 units each semester will be to ensure integration of assessment and analysis of data.  Entire faculty | Finish program and course redesign.  Continue analysis of data from Moodle prompts and assessment from specific courses. Discuss how results can be used to improve curriculum  Design embedded assessments within gateway courses (there will be 3).  Utilize knowledge surveys in all classes. |
| 2015-2016  Year 3 | Initial implementation phase I | 12 units reassigned time; specific assignments TBD; at least 3 units each semester will be to ensure integration of assessment and analysis of data.  Entire faculty | First year teaching new gateway courses.  Create the new capstone experience for B.A. and B.S. majors, including assessment. |
| 2016-2017 | Continued implementataion | Entire faculty | Initial analysis of assessment data for the gateway. Substantial discussion about the first year of teaching to revise the course flow. |
| 2017-2018 | Complete implementation and Initial Assessment Phase | 9 units reassigned time;at least 3 units each semester to ensure integration of assessment. Entire faculty | First year teaching the new capstone experience. Evaluate the initial effectiveness of the newly revised curriculum. Ensure that the infrastructure is in place for full longitudinal tracking of students starting in our newly revised curriculum. |

**Curriculum Alignment: Resources for Assessment**

In which courses or activities is relevant information covered? Which courses or activities provide student learning opportunities for the program learning outcome?

(For each course indicate at which level the outcome is covered -- Introduced, Developed and Mastery.)

The following are the current SLOs for the undergraduate geology option. They will likely be slightly revised in 2011-2012. We recognize that there is a deficiency in mastery of some of the SLOs because changes in the curriculum removed the capstone experience and a replacement has not yet been implemented.

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| Program Courses |  | SLO 1: Students can demonstrate conceptual understanding of different earth materials and the processes that shape them throughout their history. | SLO 2: Students can demonstrate skills in standard data-gathering and data-analysis methods in both lab and field settings. | SLO 3: Students can identify geologic problems and develop testable hypotheses that would aid in their solution both independently and in collaboration with others. | SLO 4: Students can present polished summaries, both written and oral, of their geological discoveries. |
| GEOL 101/102 | Geology of Planet Earth & Lab | I | I |  |  |
| GEOL 110/112 | Earth and Life through Time & Lab | I | I |  |  |
| GEOL 207/L | Mineralogy | D | I | I |  |
| GEOL 235 | Field |  | I, D | I | D |
| GEOL 307/L | Petrology | D | D | D |  |
| GEOL 310/L | Structure | M | D | D | D |
| GEOL 341/L | Sedimentary | D | M | D | I |
| GEOL 351/L | Paleontology | D | D | D | D |
| GEOL 443/L | Stratigraphy | M | M | M | D |
| GEOL  450 | Summer Field | M | M | M | M |
| GEOL 464/L | Geophysics |  | D, M | D, M |  |