Program: Bachelor of Arts in Earth Science
Department: Geology
Number of students enrolled in the program in Fall, 2011: 9
Faculty member completing template: Dave Evans (with input from all department faculty members)

Period of reference: 2006-2007 to present

1. Please describe your program’s learning-outcomes trajectory since 2006-07: Has there been a transformation of organizational culture regarding the establishment of learning outcomes and the capacity to assess progress toward their achievement? If so, during which academic year would you say the transformation became noticeable? What lies ahead; what is the next likely step in developing a learning-outcomes organizational culture within the program? [200 words or less]

   The Earth Science B.A. program was introduced in AY 2007-2008 to provide a curriculum for students interested in Earth Science but who do not anticipate becoming scientists. The Earth Science program has a broad, cross-disciplinary curriculum that consists of courses in Geology, Geography, Biology, Physics and Astronomy. Therefore, our department can use our assessment activities to influence a relatively small number of required courses in the program. Geology courses within the Earth Science program are improved by “closing the loop” on assessment in the Geology B.A. and B.S. programs because of overlap between courses in those programs and Earth Science.

   In the last several years the Department has been intentional about focusing our assessment activity on the Geology B.S. and B.A. programs. Consequently, we have not defined desired learning outcomes or created assessment tools specific to the Earth Science B.A.

2. Please list in prioritized order (or indicate no prioritization regarding) up to four desired learning outcomes (“takeaways” concerning such elements of curriculum as perspectives, specific content knowledge, skill sets, confidence levels) for students completing the program. For each stated outcome, please provide the reason that it was designated as desired by the faculty associated with the program. [300 words or less per outcome.]

3. In what ways are the set of desired learning outcomes described above aligned with the University’s Baccalaureate Learning Goals? Please be as specific as possible. [400 words or less]

4. For each desired outcome indicated in item 2 above, please:
   a) Describe the method(s) by which its ongoing pursuit is monitored and measured.
   b) Include a description of the sample of students (e.g., random sample of transfer students declaring the major; graduating seniors) from whom data were/will be
collected and the frequency and schedule with which the data in question were/will be collected.

c) Describe and append a sample (or samples) of the “instrument” (e.g., survey or test), “artifact” (e.g., writing sample and evaluative protocol, performance review sheet), or other device used to assess the status of the learning outcomes desired by the program.

d) Explain how the program faculty analyzed and evaluated (will analyze and evaluate) the data to reach conclusions about each desired student learning outcome.

[200 words per outcome]

5. Regarding each outcome and method discussed in items 2 and 4 above, please provide examples of how findings from the learning outcomes process have been utilized to address decisions to revise or maintain elements of the curriculum (including decisions to alter the program’s desired outcomes). If such decision-making has not yet occurred, please describe the plan by which it will occur. [200 words per item]

6. Has the program systematically sought data from alumni to measure the longer-term effects of accomplishment of the program’s learning outcomes? If so, please describe the approach to this information-gathering and the ways in which the information will be applied to the program’s curriculum. If such activity has not yet occurred, please describe the plan by which it will occur. [Please limit your response to 300 words or less]

The Department’s data from alumni has not extended beyond the survey used for program review. The incoming Chair, Tim Horner, has stated that improving alumni connections will be a high priority during his term. We anticipate that surveying alumni about our Earth Science program will be an effective way to reach out to alumni and we expect to do so early in AY 2012-2013.

7. Does the program pursue learning outcomes identified by an accrediting or other professional discipline-related organization as important? Does the set of outcomes pursued by your program exceed those identified as important by your accrediting or other professional discipline-related organization? [300 words or less]

8. Finally, what additional information would you like to share with the Senate Committee on Instructional Program Priorities regarding the program’s desired learning outcomes and assessment of their accomplishment? [Please limit your response to 200 words or less]

The Geology Department has been fairly aggressive about using assessment of learning outcomes to improve our curricula in the Geology B.S. and B.A. programs. An implicit assumption of this focus has been that improvements in the Geology
programs will lead to improvements in the Earth Science program because of the overlap in required courses. Having recently “closed the loop” with ongoing assessment in the Geology B.S. and B.A., the faculty now finds itself in a position to addresses learning outcomes for the Earth Science B.A.