Form E-1-A for Boston College Undergraduate Programs

Program: GEOLOGICAL SCIENCES

1) Have formal learning outcomes been developed? What are they? (What specific sets of skills and knowledge does the department expect its majors to have acquired before they graduate?)

All Geological Sciences majors will be able to:

1. Think critically about scientific problems in the geological sciences.
2. Understand geological and geophysical maps and perform geological and/or geophysical field investigations.
3. Collect, analyze, and interpret qualitative and quantitative scientific data in geological sciences.
4. If this is their goal, enter graduate or professional school in geological sciences, environmental science, policy, law or other related fields.
5. If this is their goal, obtain a job or internship in a geological science related field.

2) Where are these learning outcomes published? Be specific. (Where are the department’s learning expectations accessible to potential majors: on the web or in the catalog or in your department’s major handouts?)

These goals will be included in the descriptions of majors on the department website (http://www.bc.edu/schools/cas/geo/undergraduate.html) and in handouts available in the Department’s main office.

3) Other than GPA, what data/evidence is used to determine whether graduates have achieved the stated outcomes for the degree? (What evidence and analytical approaches do you use to assess which of the student learning outcomes are being achieved more or less well?)

Analyze student work from a major paper, project or final exam from one or two of the required Geological Sciences upper-level courses (GE220, GE264, GE285, GE370, GE372, GE374, GE376 and GE391) taught during that academic year.

At the end of their final year, Geological Sciences majors will be asked to complete an online survey to describe their experience in this program, make suggestions for improvement, and inform us of their future plans.

4) Who interprets the evidence? What is the process? (Who in the department is responsible for interpreting the data and making recommendations for curriculum or assignment changes if appropriate? When does this occur?)

A committee of department faculty members will analyze the assignments based on a rubric. This committee will discuss opportunities to improve student learning throughout the curriculum based on the findings of the analysis. The findings, including whenever possible quantitative rubric scores, will be summarized and presented at a department meeting during the summer and will be included in department annual reports.
The faculty will review the survey results annually during the summer meeting. The findings will be included in department annual reports, and compiled as part of Academic Program Reviews.