2016
Elements of the Assessment Process
Form E-1-A for Boston College BIOLOGY Department

Biology BS and BA Major

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?)

   2. Students will apply the process of science through observation, experimentation and hypothesis testing.
   3. Students will be able to use quantitative reasoning in the analysis of dynamic biological systems.
   4. Students will use bioinformatics and databases to study biological processes.
   5. Students will understand and practice the ethics surrounding scientific research.

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 dept major handouts?)

   Biology Department Website  http://www.bc.edu/schools/cas/biology/undergrad.html

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

   Evaluation of student work: Beginning in 2011-12, rubrics to address proficiency in the Core Competencies will be developed to assess the work of Biology Seniors in selected advanced level courses.

   1. Faculty involved in teaching advanced level courses will generate rubrics to address all or a subset of the core competencies.
   2. Faculty teaching the advanced level courses, in addition to assigning grades, will rate the work produced by Biology Seniors using the appropriate rubrics.

   Senior survey. Biology UG program administrator will administer surveys to graduating seniors asking them to assess their experience pertaining to the Core Competencies

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?)

   Faculty teaching advanced level courses will share quantitative rubric scores with a committee of full time department faculty. This committee will analyze the survey findings and rubric scores and discuss opportunities to improve student learning through the curriculum based on the findings of the analysis. The results of the survey, rubric scores and committee discussion will form the basis of a presentation and full faculty discussion at the Annual Department Assessment Meeting. The full faculty will generate an action plan for improving student learning.