Microbial Biology BS Assessment Report, 2012

Expected Outcomes: Effective communication skills
Students should be able to communicate effectively in biology. This encompasses both written and oral communication relevant to the discipline. Students should be able to write and speak using the genres common to biology.

Related typical general outcomes:
7 Written communication
8 Oral communication

Assessment Methods:
Method:
The Department of Biological Sciences faculty developed a professional communications course, BIOL 4950 Undergraduate Seminar, to provide students with instruction in information literacy and oral and written communication. We offer separate sections for the different majors administered by the Department. Students in this course read a number of research articles, write a number of synopses of these articles and an annotated bibliography, and present an article to their peers. Each of these experiences has a rubric for assessment. Faculty are encouraged to prepare a summary of the results from the rubrics to identify areas of student strength and weakness. This year, some of the faculty involved in this course met to discuss student mastery of these skills and to make recommendations for improving the course and addressing particular areas of weakness. This year we focused on oral communication skills.

Findings:
1. Faculty are generally satisfied with student performance and feel this may reflect the fact that a number of courses now include opportunities for oral presentations
2. A persistent weakness is the ability to interpret and present visual information. This appears to be more a problem with student ability to understand the data rather than a problem with presentation skills
3. Students tend to be imprecise in their communication. They fall back on colloquial analogies rather than using the language of the science.

How did you use the findings for improvement?
1. We will develop a new assignment in the course to provide experience with evaluating various forms of visual data.
2. We are adjusting the rubric to give greater emphasis to the use of scientific language in discussions. Faculty will also encourage greater precision in the class discussions.

Expected Outcomes: Basic knowledge of Biology
Graduates will demonstrate basic knowledge and understanding of the general topics in biology
**Related typical general education outcomes:**
11 Scientific Literacy

**Assessment Methods:**
Method: Achievement Test
  In past years, our graduating seniors have taken the ETS Major Field Test (MFT) in Biology.

**Findings:**
  We did not administer the test this year.

**How did you use findings for improvement:**
  We have decided to reconsider whether we want to use this test to measure student mastery of key concepts in biology. We are discussing various alternatives that might help us better assess our curricula and identify concepts that need more attention.