

## **Departmental and Program Assessment Annual Assessment Plan Report**

Academic Year: 2007 - 2008

Academic Department or Program: Biochemistry and Molecular Biology

Chair: Mark Sutherland

### **Assessment Plan**

#### **Is there an assessment plan for your department or program?**

No. The assessment plan is still under development.

#### **Does the assessment plan include stated student learning goals?**

Although the final student learning goals are yet to be formulated, they will be based on the philosophy we used when developing the major. Our general goal was to provide a major that would do the best job of preparing students for graduate schools in biochemistry and molecular biology. In order to do that, we designed the major to:

- allow student to tightly focus their education.
- provide students a rigorous introduction to the various sub-disciplines with biochemistry and molecular biology.
- require a significant research component.

These program goals will lead to course goals that will include the students:

- developing an in-depth appreciation for biochemistry and molecular biology.
- fully participating in the process of science including:
  - hypothesis development,
  - experimental design and interpretation,
  - explaining their research in both written and oral formats.

#### **Does the assessment plan include a list of assessment data that are collected each year?**

We require students to take the Biochemistry and Molecular Biology GRE, complete a research project, write a formal report and present a seminar based on that research. We also collect data on student success after graduation such as acceptance to graduate and professional schools.

#### **Has your department or program done an assessment audit of your courses to determine how course goals match overall student learning goals?**

There are no BCMB course; the courses within the major are part of the Biology, Chemistry, Mathematics and Physics Departments.

**Are department or program student learning goals available to students? Are student learning goals included in course syllabi in your department or program?**

All faculty have been requested to put course goals onto their syllabi. The BCMB program goals will be posted to the web upon completion.

### **Student Assessments**

**Describe which *direct* assessments in your assessment plan have been collected for the year and which have not. [“Direct” refers to evaluated student work.]**

We have collected GRE scores (and MCAT scores for those planning on medical school), and acceptance data for medical and graduate school

**Describe which *indirect* assessments in your assessment plan have been collected for the year and which have not. [“Indirect” refers to student surveys or opinions.]**

We have hosted informal discussion sessions with majors, and have requested an informal report on our graduates experience in the major. We will develop a formal student survey in the future.

### **Assessment Planning**

**How is information about student learning shared and used for department or program decision making?**

We held discussions in the fall on two primary topics; changing one of the courses required for the major and increasing the requirements for the Senior Capstone experience. We conferred again after the Senior Research Presentations, both in person and through e-mail where we discussed the capstone experience (GRE exam and research presentation)

**Describe any curricular or other programmatic changes that have been made that were based (at least in part) on the availability of your assessment data.**

We instituted one important change this year and will add another in the fall. We were not satisfied with student performance on the research presentation in past years, so we added a requirement that students attend at least 8 seminars over the course of the year. These could be any scientific seminars where original research

was presented. We felt that there was an appreciable improvement in seminar quality this year.

Starting in the fall of 2008, we have replaced Botany or Zoology with General Physiology as a required course. The content of the latter course is more in line with the focused nature of the major.

**Describe any changes in the Assessment Plan that have been made during this academic year. (If changes have been made, please submit an electronic copy of the revised plan to Amanda Hurd.)**

**Define at least one action item for your group that will be a goal of your assessment discussions next year?**

We will continue our discussion of the capstone experience, looking for ways to improve the research and presentation experience.

We also need to devise better mechanisms for increasing student involvement with the major. There is no identifiable "home" for BCMB majors, a need we need to figure out how to address.