

# **Program Review Committee Report**

## **Department of Biology**

### **Spring 2009**

#### **Mission**

The Department of Biology has a well-stated mission, consistent with Washburn's.

#### **Goals and Objectives:**

Two major goals with related objectives focusing on quality education and student services are listed.

#### **Statistical Information**

Student credit hours (SCH) increased 4% between fall of 2003 and fall of 2008. There was a decline in SCH during 2006-07 due to renovation of Stoffer. In 2007-08, 87.8% of SCH was lower division credit hours. This reflects a trend over the five-year period for a higher percentage of lower division credit hours being offered as compared to upper division credit hours.

Departmental expenditures as a percent of Washburn instructional expenditures remained at 3% over the five year review period. The number of graduates increased from 14 in 2003-04 to 27 in 2007-08. The Department currently has 142 declared majors, which is an increase from the 137 in 2003-04. A total of nine full-time faculty and four adjunct faculty currently teach in the department.

#### **Outcome Measures**

The Department of Biology uses the Biology Field Test as a measure of student outcome performance. Department students averaged a score of 158.7 which compares to an average score of 153.3 of 381 colleges nationwide over a seven-year period. As a rule, students' scores exceeded the national mean percentage on all sub-category scores. The Department also gives an exit survey to graduating seniors. Survey items with the highest ratings included quality of instruction, advising, faculty availability, and faculty interactions. All other areas (e.g., capstone experiences, design of lab experiences, course availability, and selection of seminar topics) were on average rated satisfactory and above. Other outcome measures include written tests, laboratory exams, and a capstone research project.

#### **Department Strengths**

The Department lists as a strength its vibrant and committed faculty who actively work with students, while being engaged in research, and service to the department and the university at large. The faculty are able to accommodate the research interests of students, which is a strong value of the Department. A rigorous curriculum serves the diverse interests and goals of students, and is also listed as a strength. The Department is able to offer service courses in the form of general education as well as courses needed by specific disciplines (e.g., allied health professions). There has been an increase in the number of graduates, and the Department continues to have strong relations with its alumni. The Department notes a renovated Stoffer

Science Hall has enhanced faculty's ability to deliver quality instruction and has had a positive impact on faculty and faculty-student research.

### **Department Weaknesses**

Due to faculty load and increased numbers of non-major courses, the Department offers limited numbers of biology electives to majors. The number of faculty also limits the ability of the Department to offer sufficient courses to accommodate potential allied health, nursing, and HPEES students. This situation results in students taking required biology courses elsewhere—and, in some cases, results in students who are less prepared and, thus, less successful once admitted to a Washburn allied health program. There is also the need for faculty to have time to restructure courses such as BI 100 & 101. The Department experiences difficulty hiring and retaining qualified adjuncts and lecturers, due to the limited number of qualified biologists in the area. Lack of competitive salaries make it difficult for the Department to hire tenure-track faculty, given that potential science faculty can command higher salaries in the market place. A limited scholarship fund negatively impacts the Department's recruitment efforts. Also, the operating budget is not sufficient to enhance and maintain equipment and instrumentation.

### **Changes in the Future**

The department will consider offering new degree options (e.g., environmental sciences, microbiology, molecular cellular biology) in order to reflect current trends in biology. New programs would be based on the expertise of the faculty. Other curricular changes could include interdisciplinary courses that require co-teaching among faculty from the biology and other departments, and the inclusion of courses from other departments. The Department also plans to develop resources (e.g., a microscope and imaging facility, larger greenhouse) reflecting the interest and expertise of its changing faculty, and supporting instruction, research, and publications. In an effort to maintain and support student services, the Department will continue to update an advising manual for students and create a manual for faculty. Other goals include activities to recruit and retain high quality students; maintain connections among students, alumni, and faculty; and provide more career information to biology students.

### **Rating**

Operating at an acceptable level

### **Recommended Action**

Continue at the current level of activity and resources.

Ask administration to consider current staffing needs and facility use when evaluating the need to add an additional line per service provided to HPEES, allied health, and nursing programs. The Program Review Committee also suggests the Biology Department continue to work with Mabee Library to determine ways of increasing faculty access to scientific research databases and literature (possibly via a consortium with some of the Regent's Schools).