Assessment Report
July 1, 2011 – June 30, 2012

Program Assessed: Undergraduate degree in Biological Sciences
Assessment Coordinator: Dr. David Goldstein, Chair

I. ASSESSMENT MEASURES EMPLOYED

General Departmental Mission
The Department of Biological Sciences is dedicated to the advancement and dissemination of biological knowledge. To fulfill this mission the Department supports research and instruction (baccalaureate and graduate level), as mutually reinforcing activities.

Intended Student Learning Outcomes (Baccalaureate)
The graduating student will have a sound broad knowledge of certain core areas of biology with the necessary skills in mathematics, statistics, chemistry and physics for supporting and integrating into biological applications. Our department has implemented a set of core courses/labs in the areas of genetics, molecular biology, cell biology, evolution and ecology.

The graduating student will possess adequate skills in scientific writing/statistical analysis and associated computer literacy. Approximately 90% of our courses are laboratory based and are writing intensive in nature since they require several lab reports. Computer skills are developed and reinforced in many of our courses through uses in instructional web pages including on-line course notes, quizzes, tests, and discussions. Many instructors communicate electronically with their students, require tests to be taken on line and require student presentations to be made using PowerPoint.

Departmental student enrollments (Fig. 1) and degrees awarded (Fig. 2) are shown below.

FIG. 1

![Enrollments Graph]

FIG. 2

![Degrees Awarded Graph]
II. ASSESSMENT FINDINGS

See ExitSurvey2012.pdf

Program Improvements

STEM Initiatives

Economic competitiveness and individual opportunity increasingly rely on the ability to use math, science, engineering and technology (STEM) skills and knowledge across disciplines to solve problems. Ohio's push to graduate students prepared for 21st century careers in science, technology, engineering and mathematics has probably never been stronger. The biology department offers students a couple directions to strengthen their STEM skills. We have increased our student participation in independent study offered by the faculty in the department and other matrixed disciplines. Students are working in a research lab either shadowing a graduate student, independently with guidance of the faculty member, or working on their own honors research and gaining valuable experience in all STEM disciplines.

Orientation Seminar in Biological Sciences:

Coinciding with the semester implementation, the Department now requires students to take “Orientation Seminar in Biological Sciences”. Speakers from various professions or disciplines will serve as guest speakers and share information about their careers. Some will be practicing professionals, others will be admissions personnel related to schools for the chosen profession. Whenever possible, alumni speakers will be invited to participate. Upperclassman or recent graduates will also participate as “peer mentors” to the students. Students are expected to read papers related to each presentation and participate in group discussions with the speaker. In addition to career speakers, the class is used as a way to get announcements to the sophomore class about upcoming activities in the department or on campus.

Biological Sciences Association:

To increase student involvement within the Department and the community, the Department has worked hard at recruiting students to be part of the Biological Sciences Association. The purpose of this club is to form a group of students with a common interest of science, primarily biology, and to help develop friendships among students and within the Department faculty and staff. The club focuses on 3 main areas of interest: (1) Education (speakers, tours, seminars), (2) Community Service (science fair judging, high school and college mentoring), and (3) Social Activities. The Biological Sciences Association successfully represents the Department, as well as the University, and increases involvement and participation by our students.

Department newsletter:

The Department is continuously changing with new staff and courses. To keep students informed of these changes, a Departmental newsletter, the BioLogue, continues to be published. The newsletter includes a description of all the changes within the Department, an introduction of the new faculty member, recognizes awards received by faculty, staff and students, as well as a note from the Chair of the Department to the students. The goal of the newsletter is to keep the students, as well as the faculty, up-to-date with the changes, and to help advertise new expertise and courses added to the Department. The newsletter is electronically emailed to all students, faculty and staff within the Department on a quarterly basis and is available on the departmental and college website.

IV. ASSESSMENT PLAN COMPLIANCE

None

V. NEW ASSESSMENT DEVELOPMENTS

None