

# Biological Science Degree Program Five-Column Model for 2004-2005

## Statement of Institutional Purpose

### *Mission Statement*

The Biology Department maintains a highly educated, philosophically and culturally diverse faculty in order to...

### *Goal Statement*

Provide our students with quality lecture, laboratory, and field instructional experiences which foster student inquiry into science, and prepare them for post-baccalaureate pursuits.

## Program Intended Outcomes & Objectives

1. Students will demonstrate an understanding of the dynamics of interactions and adaptations within biological systems, and a general knowledge of biology; its language, methodologies, findings and applications.
2. Students will be able to communicate effectively in oral and written formats.
3. Students will be able to use appropriate tools to carry out investigations in their intended field.
4. Students will be involved in regional service partnerships.
5. Students will be prepared for post-baccalaureate plans

## Means of Program Assessment and Criteria for Success

1. Graduates taking the senior major biology (ETS) field exam will be at or above the 50th percentile compared to national results with no subscale score below the 30th percentile.
2. Course embedded activities will require students to demonstrate their levels of learning, skills, and communication using departmental criteria:
  - a. By the end of each semester course, students will score a minimum of 70% on departmental rubrics for writing scientific papers, oral presentations, and critiquing peer-reviewed journal articles where appropriate.
  - b. Students in all 3000 level organismal courses and 4000 level capstone courses will demonstrate their understanding of the vocabulary of biology by reading and critiquing at least one primary paper.
  - c. At least 50% of biology majors will present original research in department symposia
3. At least 50% of biology majors will participate in undergraduate research, service learning, cooperative education, and/or internships.
4. At least 50% of students and faculty will participate in a student-faculty focus group each semester, to address issues of advising, grading, curriculum and retention. Results of focus group will be used to develop a strategic plan for the department in subsequent faculty meetings. Meeting results and subsequent responses will be posted for students in the science building hallways, on the department web-page, and in the school newspaper.
5. Ongoing advisory committees will review programs and ensure relevant curriculum opportunities (e.g., industry contacts and community members for biology, faculty committee to assess preparedness for medical-related field, teaching observations for teaching majors, undergraduate research oversight committee.). The department will solicit an external review of biology programs from another regional university of similar size.
6. Student and Peer Teaching evaluations will rate faculty at 80% or greater for overall teaching effectiveness.
7. A graduate exit survey and an alumni survey will be conducted at intervals post-graduation, 1, 5, and 10 years. 75% of biology graduates will indicate on the Exit and Alumni surveys that their biology program was effective in preparing them for post-baccalaureate plans