Bachelor of Science with a major in Biology (BS) Instructional Degree Program

Spring 2003 Assessment Period Covered

May 8, 2003 Date Submitted

# **Expanded Statement of Institutional Purpose Linkage:**

## **Institutional Mission Reference:**

Texas A&M International University, a Member of The Texas A&M University System, is committed to the preparation of students for leadership roles in their chosen profession and in increasingly complex, culturally diverse state, national, and global society ... Through instruction, faculty and student research, and public service, Texas A&M International University is a strategic point of delivery for well-defined programs and services that improve the quality of life for citizens of the border region, the State of Texas, and national and international communities.

## College/University Goal(s) Supported:

The faculty and administrators of the Department of Biology and Chemistry are committed to providing a scholarly environment, which prepares students for productive lives in a dynamic world and in a changing global and technologically advancing environment. To this end faculty encourage students for the following: 1) Developing the ability to think critically and communicate effectively. 2) Pursuing a broad base of knowledge through course offerings in other departments, 3) Collaborating with faculty through research, scholarship, and professional endeavors to expand the knowledge base of a specialized discipline, and 4) Contributing to appropriate community-based activities as beginning professionals. To assist in meeting these goals, faculty recognized the need for, and are committed to, on-going professional development through education, practice, community service, research, and scholarly publications.

# Intended Educational (Student) Outcomes:

1. Students will critically analyze disciplinary issues in Biology.

**2.** Students will be able to make a formal presentation of their research projects.

**3.** Students will acquire an understanding of the major concepts in Biology (plants, animals and microorganisms).

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# Intended Educational (Student) Outcome:

**NOTE:** There should be one form for each intended outcome listed. The intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

**1.** Students will critically analyze disciplinary issues in Biology.

#### First Means of Assessment for Outcome Identified Above: 1a. Means of Program Assessment & Criteria for Success:

Evaluation of the student's performance in Biology Seminar. To be assessed by peer evaluation. Every semester 72% of the students will have a satisfactory rating.

## 1a. Summary of Assessment Data Collected:

Biology seminar students were evaluated by their peers on their presentations of biological research papers.

#### 1a. Use of Results to Improve Instructional Program:

Areas in which students demonstrate weakness will be addressed in biology seminar, as well as other biology classes.

#### Second Means of Assessment for Outcome Identified Above: 1b. Means of Program Assessment & Criteria for Success:

Students will critique committee selected "short reading passages" in required Junior and Senior Biology courses. Every semester 72% of the students will have a satisfactory rating.

#### 1b. Summary of Assessment Data Collected:

Insufficient data were collected for this means of assessment.

## **1b.** Use of Results to Improve Instructional Program:

This means of assessment will be fully implemented next year.

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**2.** Students will be able to make a formal presentation of their research projects.

### First Means of Assessment for Outcome Identified Above: 2a. Means of Program Assessment & Criteria for Success:

Evaluation of students' presentations at research conferences by a committee of biology faculty. Every semester 72% of the students will have a satisfactory rating.

## 2a. Summary of Assessment Data Collected:

Students presented their research at the Spring 2003 Student Research Conference. A panel of biology faculty evaluated the presentations.

## 2a. Use of Results to Improve Instructional Program:

Areas in which students demonstrated weakness, such as data analysis and interpretation, will be stressed in the future.

#### Second Means of Assessment for Outcome Identified Above: 2b. Means of Program Assessment & Criteria for Success:

Evaluation of the student's participation in the design, development and analysis of research projects in biology. To be assessed by a committee of biology faculty. Every semester 72% of the students will have satisfactory rating.

## 2b. Summary of Assessment Data Collected:

All students in invertebrate zoology, limnology and ecology participated in the design, development, and writing of a research project.

#### 2b. Use of Results to Improve Instructional Program:

Areas where students had the most difficulty will be given additional emphasis in the future.

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**3.** Students will acquire an understanding of the major concepts in Biology (plants, animals and microorganisms).

## First Means of Assessment for Outcome Identified Above: 3a. Means of Program Assessment & Criteria for Success:

Evaluation of the performance of the students in standardized examinations (Biology Major Fields Test). Every semester 72% of students will have a satisfactory rating.

#### **3a. Summary of Assessment Data Collected:**

Students took the Biology Assessment Test. We are waiting on the results of the exam.

#### **3a. Use of Results to Improve Instructional Program:**

Results will be analyzed and areas of weakness will be addressed more rigorously in the future.

# Second Means of Assessment for Outcome Identified Above:

### **3b. Means of Program Assessment & Criteria for Success:**

Evaluation of the performance of the students in "embedded questions" selected and evaluated by a committee of biology faculty in required courses. Every semester 72% of the students will have a satisfactory rating.

#### **3b. Summary of Assessment Data Collected:**

Questions were "embedded" in the final exam in required junior and senior biology courses.

#### **3b. Use of Results to Improve Instructional Program:**

Areas where student success was below expectation will be emphasized more heavily in the future.

## **SUPPORT DOCUMENTATION**

SOURCE	LOCATION/Special Instructions
Peer Evaluation	
Evaluation of Students'	
Presentations	
Evaluation of Students'	
Research Projects	
Biology Major Field Test	
Evaluation of Students'	
Performance in "embedded	
questions"	