

Effective: January 1, 1993  
Revised: October 20, 1993

## **MAJOR FIELD ASSESSMENT PLAN**

Degree Program: **B. S. BIOLOGICAL SCIENCES**

### ***Mission Statement:***

As the primary focus of Southeastern Louisiana University, undergraduate instruction in the liberal arts and sciences is comprehensive and of high quality.

By offering a wide range of courses and curricula in the arts, humanities, and in the natural, applied and social sciences, the College of Arts and Sciences enables students to understand the world around them in a broad intellectual perspective. Such a perspective provides students the opportunity to live a full, rich balanced life, to seek additional specialized training in the professions, and to assume positions of leadership in business, industry, and government.

The Department of Biological Sciences offers a four year curriculum with concentrations in general biology, botany, microbiology, and zoology including pre-professional programs in medicine, dentistry, physical therapy, optometry, forestry, agriculture, veterinary medicine, and pharmacy. In addition, the Department offers a Master of Science degree in biology.

Students enrolled in courses offered by the Department of Biological Sciences acquire essential content knowledge, develop critical process skills, and obtain healthy scientific attitudes through participation in a variety of contemporary, as well as innovative courses. Many courses offered by the Department include student-centered "hands-on" laboratories. The Department recognizes the need for computer skills and encourages students to use computers in their class work. The Department also recognizes the importance of practical field experiences for future biologists. Students exiting the Department should be well-prepared to enter a variety of career choices.

***Overall Goal Statement:***

To develop and maintain:

1. Quality educational programs.
2. Appropriate standards for the assurance of each graduate's proficiency in .. a major field of study.
3. A positive environment for students' overall development.

***Specific Goal #1:***

Biology graduates will have a favorable opinion of their educational experiences at SLU and in particular within the Department of Biological Sciences.

***Assessment Procedures and Administration:***

All graduating seniors will be given the Biological Sciences Exit Survey. This questionnaire consists of 22 questions related to their educational experience at SLU and also asks them to write down any comments concerning the department. The answer choices are: excellent, good, satisfactory, unsatisfactory, and no opinion. The questions on the survey are:

1. The overall education that you received at SLU?
2. The overall education you received in the Biology Department?
3. The average quality of the instructors that taught Biological Science courses that you took.
4. The overall education you received in courses outside the Biology Department?
5. The average quality of instructors in courses outside the Biology Department?
6. The availability of academic advising (in the Biological Sciences Department)?
7. The quality of academic advising you received?
8. The quality of career counseling in your major that you received?

9. The outlook for a job or further study in your major field?
10. The quality of the classroom facilities in the Biology Department (seating, lighting, air conditioning, chalkboards, etc.)?
11. The quality of laboratory facilities in the Biology Department?
12. The quality of laboratory equipment and supplies (microscopes, models, specimens, etc.)?
13. The quality of field trips, field work, field stations, and factors related to any field experiences you may have had in your studies.
14. The helpfulness of the Biology office staff and support personnel?
15. The access to and helpfulness of the Biology chairman?
16. The access to and helpfulness of the Biology faculty outside the classroom?
17. The access to and helpfulness of other administrators and their staffs on campus (Dean, Registrar, Financial Aid, etc.)?
18. The organization of the curriculum (course requirements) in your major?
19. The preparation that lower level Biology courses (100-200 level) gave you for the upper level (300-400) courses in your major?
20. The availability of required Biology courses in your major?
21. The availability of required non-Biology courses?

In question 22, the student is asked their major or field of concentration.

The Biology exit survey is mailed to each graduating senior each semester and the students fill it out and return it to the department. Once a year the Department Head and Assessment Chairman will compile and evaluate the results and report these to the faculty.

***Expected Outcome:***

Graduating seniors will give an overall favorable opinion on each question relating to their education experience in the Biology Department. At least 50% of the ratings

for each question will be above satisfactory (good or excellent) and no more than 10% will be unsatisfactory.

In addition, the department will rate well on questions which can be compared to the students' opinions of their educational experiences outside the department or at SLU in general. For instance, the average answer for question #2 should be equal to or above the average for questions #1 and #4. Other paired questions include #3 and #5, #14 and #15 vs #17, and #20 vs #21.

### ***Use of Results:***

The results of the Biology exit survey will be used by the department to help detect any deficiencies in the department that may be corrected. If problems are seen by the faculty, Department Head, or Assessment chairman, these will be brought to the attention of the Department Head and Assessment committee for study. The results of the study and recommendations will be brought to the faculty for resolution or further recommendations. The Department Head will then implement any reforms in the program.

### ***Specific Goal #2:***

Students taking Biological Science courses will have a favorable opinion of the courses and the instructors. Biology courses and instructors will compare favorably to other departments on campus.

### ***Assessment Procedures and Administration:***

Each semester all students taking Biological Science courses are required to take a University administered Student Opinion of Teaching survey (SOT) in each course. This survey has ten questions relating to the evaluation of the instructor and course in addition to other questions relating to information on the student evaluators and procedural compliance. The scores range from 6=strongly agree to 1=strongly disagree. The ten questions are:

1. Communicates subject matter well
2. Makes course objectives clear
3. Exhibits enthusiasm for subject
4. Defines new terms and concepts
5. Gives organized lecture/activity
6. Accurate and fair in evaluations
7. Is accessible outside of class

8. Has concern for student progress
9. Shows respect for students
10. Was excellent learning experience

Approximately two months after completing the surveys, the results for each faculty member and the department are forwarded to the department by the Testing Office.

***Expected Outcome:***

Students taking biology courses at all levels will judge Biological Science courses as equal to or above the average for the College of Arts and Sciences and the University.

***Use of results:***

Each semester the Department Head and the Assessment Chairman will review the overall results of the SOT. If the average score for the Department is below the average for the College or University, steps will be taken to find the reasons for this and correct the deficiency. The Department Head will review the individual faculty scores and for those instructors who are significantly below the average, will schedule a conference with the instructor to go over the questions and scores in an attempt to discover the reason for the low scores and to discuss ways to improve teaching if necessary.

If the low averages are the result of a particular course or section of the department and not individual faculty, the Department Head will call a special faculty meeting with the affected faculty to discuss possible problems and solutions.

***Specific Goal #3:***

Senior students will ~~have good written and oral communicative skills. These include~~ being able to conduct a literature search, read and interpret scientific literature (including charts, graphs, and tables), write a grammatically correct scientific report, and give a clear oral presentation.

***Assessment Procedure and Administration:***

Senior Biology majors upon taking Biology Seminar will provide the instructor with copies of selected written papers they have prepared during their years at college. These will be reviewed by the instructor and placed in a folder in the Department

Office. Each year the Department Head and Assessment Chairperson will also review these files.

As part of the seminar course, each student is required to prepare and give a well organized presentation to the class. This talk will be evaluated and graded by the instructor. If possible, other faculty will also view the presentation or it will be videotaped and the tape kept on file in the Department office. The student must make at least a C in this class to graduate.

### *Expected Outcome:*

Each senior student will be able to provide copies of well written papers and give a well organized oral presentation following a literature search.

### *Use of Results:*

If it is found that students are not able to provide copies of their written work, especially those papers and reports done in Biological Sciences, the seminar instructor will ask the student to explain the reason for this. If the reason is that they have not been required to do such work in their classes, the instructor will report these findings to the Department Head when turning in the files of the other students. If a significant number of such students exists, the Department Head will call a faculty meeting or appoint a committee to study the problem and to present the Department with possible solutions.

At the end of each semester the Seminar instructors will report to the Department Head their impression of the overall ability of senior Biology majors to give well organized and clear oral presentations. If the instructor feels there is a problem, the Department Head will view the videotapes (if available). If the Department Head agrees there is an overall problem with the quality of the seminars being given, the Head will appoint a committee to study the problem and present the findings to the faculty for solutions.

### *Summary:*

The quality of Biology undergraduates' education is difficult to measure. By using the combination of standards in courses and grades, an exit survey, the student evaluation of teaching, and seniors' performances in Biology Seminar, the department will attempt to do so.

***Documentation can be found:***

1. In the catalogue.
2. In the biology office.

***Approved:***

Dr. Edward T. Nelson, Assessment Chairman \_\_\_\_\_

Dr. Gary W. Childers, Department Head \_\_\_\_\_

Dr. Sheila W. Chauvin, Director of Outcomes Assessment \_\_\_\_\_