EXAMPLE OF AN ASSESSMENT REPORT

Please note that this is an example, with all five elements needed in the report. It would be very useful and helpful if all departments followed this format; however, it is not a requirement, just make sure all five elements are included. These reports will be done annually, and will help when it comes to your department’s seven-year program review!

Department of Biology

I. Profile

The mission of the Department of Biology is to provide the student with a common background for the diversity of specializations which satisfy the academic needs of undergraduate biology majors. The structure of the program allows students substantial freedom to individualize their course of study, while still ensuring that each receives a broad exposure to fundamental areas in the field of biology. The department supports universities public liberal arts goal by providing courses for students of all majors, allowing them to better understand the physical universe, participate as concerned, intelligent citizens, and appreciate appropriate uses of technology. The laboratory experiences offered by the department require that students develop competence in the use of modern biological techniques, and in the analysis, interpretation and presentation of data.

Factors that could affect assessment and learning in the Department of Biology is the rapid growth of the need for nurses in the medical profession. This demand could affect the numbers of students in the Nursing Program taking biology courses.

II. Assessment Review

The learning objectives/outcomes that the Department of Biology focuses on are: Students should be able to:

1. Describe and apply basic biological information and concepts.
2. Conduct original biological research and report results orally and in writing to scientific audiences.
3. Apply ethical principles of the discipline in regard to human and animal subjects, environmental protection, use of sources, and collaboration with colleagues.

All three of these objectives/outcomes were examined since the last report in Spring 2006. The assessment measures used, as well as the process the department has in place to review those measures can be seen in the following matrix.

<table>
<thead>
<tr>
<th>Assessment Measures</th>
<th>Outcome 1</th>
<th>Outcome 2</th>
<th>Outcome 3</th>
<th>How the information is used:</th>
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<tbody>
<tr>
<td>Standardized test given to all seniors AND Final exams of three basic biology courses required of all majors</td>
<td>X</td>
<td></td>
<td></td>
<td>Data (e.g. overall test scores, number of students above, at or below standards for each content area on standardized test and course exams, etc.) are reported to the department annually by the standardized exam committee and</td>
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the instructors of the three basic courses. The department supports and encourages instructors, takes any appropriate department-level actions, and reports meeting outcomes to dean or other body that has resources to address problems, and to those composing reports for accreditation or other external audiences.

All data are reviewed as part of program review every seven years.

In a research course, students participate in a group research project, write it up in scientific report format, and also make a group-oral report to the class. The instructor(s) use explicit criteria to evaluate student work.

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Annually, the research instructor(s) share students’ scores (e.g. number of students above, at or below standards for each criterion on the rubric) with the department.

The department takes action as above.

Alumni survey asks how well alums thought they learned to conduct and communicate scientific research.

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Data reviewed annually by department for action, as above.

Sample of regional employers gathered to reflect how well our majors are doing and give advice to department.

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Data (e.g. number of respondents in each response category or number of participants offering specific types of advice, etc.) reviewed annually by the department for action, as above.

### III. Assessment Results and Action Plan

There are two areas of results that the department is going to focus their action upon over the next year.

First: Our advisory council of fifteen regional employers indicated that our majors had a good level of biological knowledge but needed stronger skills in actually conducting biological research. Data from the alumni survey also mentioned this problem. In addition to the research course, where students work in groups to complete a research project, we are going to institute a required capstone course, which requires students to conduct individual-original scientific research, and we will ask the instructor(s) annually to report to the department on student research and communication skills demonstrated by their capstone project. In three years, when several cohorts of majors have passed through the capstone, we will again survey alumni and employers to see whether student skills have increased, and we will review data from all years of the capstone projects.
Second: The research instructor(s) reported low graphing skills; we arranged with the mathematics department for greater emphasis on graphing and better assessment of graphing, in the required math course. Both the research instructor(s) and the capstone instructor(s) will report over the next few years whether graphing skills are stronger. Professor Brody is currently developing a rubric to assess graphing skills more systematically in the courses.

The laboratory experiences offered by the department require that students develop competence in the use of modern biological techniques, and in the analysis, interpretation and presentation of data.

IV. Recommendation for Improving Assessment Process

An improvement in the department’s assessment process involves a look at the usefulness of the national standardized test. The test is costly and time-consuming to administer, has low student motivation in its current format, and results are difficult to map to our curriculum. The department is investigating and evaluating other assessment measures that would help to evaluate the first objective/outcome. When changes are made, the department will update the Assessment Plan with that information.

V: Data from Institutional Research

Currently the department has 132 majors in biology. With 5 full-time faculty members and one part-time faculty.