Program Outcomes

Basic Knowledge
Demonstrate basic knowledge of the fundamental concepts of biology history, cell/molecular structure and gene function, genetics, evolution, ecology, diversity of life, and specialized ecological processes.

University Outcomes: Lifelong Learners, Skilled Professionals, Engaged Citizens

Communication
Professionally address and discuss scientific topics in a variety of mediums.

University Outcomes: Disciple Leaders, Effective Communicators, Skilled Professionals, Engaged Citizens

Scientific Reasoning
Solve problems; read, analyze and interpret scientific data and literature; design ways to test hypotheses.

University Outcomes: Disciple Leaders, Lifelong Learners, Creative and Critical Thinkers, Skilled Professionals

Technical
As appropriate for their degree, demonstrate the ability to use state-of-the-art instrumentation to conduct biological research, use proper field methodology, interpret statistics or understand and use taxonomy.

University Outcomes: Skilled Professionals

Real World Application
Obtain entry-level positions in industry or secure acceptance into graduate and professional programs.

University Outcomes: Skilled Professionals, Engaged Citizens

Assessment Plan

The department’s overall assessment plan is based on the following sources of data:

1. ETS Biology Major Field Test
   This national standardized exam has been administered to biology department students for several years and will continue to be in the future. The results allow us to see how well our students are performing relative to students from universities across the country. Outcome Measured: Basic Knowledge

2. Exit interviews
   The department chair will conduct these interviews with randomly selected students. This has been done on a limited and inconsistent basis to this point, but will be formalized beginning with the Spring 2013 semester. Outcomes Measured: All

3. Exit survey
   This has not yet occurred, but will be implemented on a trial basis at the end of the Spring 2013 semester, and will be formally adopted when the requirement is added to the course catalogue. Outcomes Measured: All
4. **Five-year alumni survey**
   Department alumni will be contacted five years after graduating to determine their employment or graduate/professional school status, and to gain their feedback regarding our department outcomes from their current vantage point. This plan has yet to be fully developed or implemented, but will be a top future priority.  
   **Outcomes Measured: All**

5. **Analysis of Course Outcomes**
   Outcomes and associated assessment methods for each course in the department have been collected and categorized based on the five outcomes for the Biology Degree. These course outcomes and assessments will be used to determine if program outcomes are being met.  
   **Outcomes Measured: All**

**Assessment Data**

The only data we currently have are the results of the ETS Biology Major Field Test. Our Biology students as a whole rank at the 67th percentile of those schools taking the exam. Individually, our students range between the 25th and 87th percentiles. We have not yet identified cutoffs that would allow us to rank students as indicated below.

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<th>Distinguished</th>
<th>Proficient</th>
<th>Developing</th>
<th>Unsatisfactory</th>
<th>Sum</th>
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<tbody>
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<td>Basic Knowledge</td>
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*Distinguished: Excellent level of achievement; exceeds expectations  
Proficient: Good level of achievement; meets expectations  
Developing: Fair level of achievement; minimally meets expectations  
Unsatisfactory: Low level of achievement; fails to meet expectations*

**Improvement Plan**

1. Identify meaningful cutoffs on the ETS Biology Major Field Test scores that would allow us to recognize levels of student achievement.
2. Implement and collect data through assessment tools 2-5 and then use that data to determine where our students currently stand relative to the Assessment Data Categories described above.
3. Identify areas where improvement needs to be made and then make and implement plans to achieve those improvements.

**University Outcomes (For Reference)**

*The purpose of a BYU-Idaho education is to help students to become*

1. Disciple leaders  
2. Lifelong learners  
3. Creative and critical thinkers  
4. Effective communicators  
5. Skilled professionals  
6. Engaged citizens