

Webster University
B.A. and B.S. in Biology
Assessment Package
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A. Purpose. The overall goal of academic assessment is to improve student learning. This assessment tool is designed to collect and analyze data to help the Department of Biological Sciences and the College of Arts and Sciences assess the effectiveness of the Biology Program Objectives.

I. Graduates will understand Biological, Chemical and Physical principles as they relate to the living world. The students will be able to:

- A1. Integrate the three science disciplines of Biology, Chemistry and Physics in their course work.
- A2. Identify the systematic relationships between the 3 domains and various organismal kingdoms.
- A3. Identify organismal structures and describe the function and evolution of these structures in plants, animals, and fungi.
- A4. Gain proficiency in analysis of cellular energetics, genetic foundations, and chemical application to biological systems.

II. Graduates will have developed independent research skills. The students will be able to:

- A1. Integrate the three science disciplines of Biology, Chemistry and Physics in laboratory exercises.
- A2. Use the scientific method in laboratory experiments
- A3. Apply the scientific method in developing a research project.
- A4. Be technically and conceptually proficient with laboratory techniques and standard laboratory procedures

III. Graduates will have developed scientific communication skills. Students will be able to:

A1. Effectively communicate the underlying principles of organismal biology (structure, function, behavior, evolutionary relationships) in writings and in presentations.

A2. Develop a written proposal for a research project.

A3. Prepare and present a final written thesis of their research.

A4. Orally defend their research project to the department.

IV. Graduates will compete successfully in gaining admission to professional and graduate programs and/or graduates will be successful in finding employment that utilizes the knowledge and education they have received during their academic program.

B. Methodology. This assessment tool is derived from a review of the Curriculum Layout and Learning Outcomes (Table 1). The final assessment will be done by the faculty after the student has defended his/her research (BIOL 4430 Senior Thesis) and submitted a final graded thesis.