

Biology Program Goals and Student Learning Outcomes

Goal 1. To achieve scientific competency in diverse biological topics

- **Student Learning Outcome 1.1**

- ❖ Demonstrate knowledge of the core concepts of biology.

Goal 2. To correctly apply the scientific method.

- **Student Learning Outcome 2.1**

- ❖ Apply the scientific method in laboratory or field including competency in: observation skills, hypothesis formulation, experimental design, and use of proper controls.

Goal 3. To demonstrate critical thinking skills and problem-solving techniques.

- **Student Learning Outcome 3.1**

- ❖ Demonstrate competency in data analysis including the preparation and interpretation of graphs and tables.

Goal 4. To obtain, critically evaluate, and communicate biological information.

- **Student Learning Outcome 4.1**

- ❖ Demonstrate information literacy skills by ability to identify, locate, and evaluate biological information.

- **Student Learning Outcome 4.2**

- ❖ Demonstrate competency in communicating experimental findings or data interpretations both orally and in writing including:
 - Demonstrating proper use of binomial nomenclature.
 - Use of appropriate scientific format with appropriate citations.

Goal 5. To improve students' understanding and appreciation of current biological issues and their relevance to society and the environment.

- **Student Learning Outcome 5.1**

- ❖ Comprehend the scientific evidence underlying biological and societal issues.

Goal 6. To comprehend the central role of evolution in the unity and diversity of life.

- **Student Learning Outcome 6.1.**

- ❖ Explain how mutation and selective pressures drive the process of evolution.