Biology BS Student Learning Outcomes

Objective 1: Demonstrate current knowledge of fundamental concepts and applications of Ecology, Genetics and Cell Biology.

Outcome 1.1: Students will demonstrate knowledge and understanding of evolutionary biology.

Outcome 1.2: Students will demonstrate knowledge and understanding of organismal biology.

Outcome 1.3: Students will demonstrate knowledge and understanding of molecular biology.

Outcome 1.4: Students will demonstrate knowledge and understanding of the transmission and expression of biological information.

Outcome 1.5: Students will demonstrate knowledge and understanding of the ecosystem function.

Objective 2: Demonstrate understanding of scientific inquiry through critical thinking and reasoning.

Outcome 2.1: Students will produce lab reports that adhere to the scientific method, which includes materials and methods, data collection, data interpretation, conclusion, and referenced sources.

Objective 3: Demonstrate ability to effectively communicate scientific findings and concepts orally and in writing.

Outcome 3.1: Students will be able to formulate and support a thesis through accurate evidence and documentation.

Outcome 3.2: Students will be able to research, collect, and assess scholarly information regarding their major field of study.

Outcome 3.3: Students will be able to present written information clearly, logically, and critically.

Outcome 3.4: As a writer, students will be able to create an audience-appropriate document that exhibits clarity and organization and serves the intended purpose.

Objective 4: Demonstrate understanding and appreciation of ethical, cultural, and global issues as they relate to the field of biology and its applications.

Outcome 4.1: Students will be able to engage in a Biotechnology Discussion Question in Genetics.

Objective 5: Demonstrate ability to use technology effectively including that associated with the field of biology and its applications.

Outcome 5.1: Students will demonstrate proficiency in gel electrophoresis, western blotting, the use of microscopes, spectrophotometers, and specialized software to store and process data.