Biology B.S. Degree (72-76 Credits)

Goal I
Students will be able to demonstrate knowledge of biological concepts, principles and relationships.

Outcomes

Objective 1A
Knowledge of the structure and function of genes, the processes of inheritance and natural selection, and interaction of genes and environment at the level of the species and the population.

Objective 1B
Knowledge of cell structure, metabolic functions and signalling in terms of cellular membranes, organelles, molecules and organisms.

Objective 1C
Knowledge of the basic biological processes that regulate functions of living systems at different levels of complexity from molecules to communities and ecological factors that influence the diversity of life.

Goal II
Students will acquire a basic set of skills that is required of a biologist

Outcomes

Objective IIA
Demonstrate the ability to understand experimental data presented: in written statements, mathematically, or graphically.

Objective IIB
Demonstrate the ability to use laboratory tools and techniques for solving biology-related problems.

Objective IIC
Demonstrate the ability to conduct original research: formulate testable hypotheses based on observations or experimental data, design experiments to test falsifiable hypotheses, statistically analyze the data, and draw inferences from the analyzed data to create new knowledge and formulate additional testable hypotheses.

Goal III
Students will be able to apply and communicate their knowledge of biology for solving real-world problems.

Outcomes

Objective IIIA
Demonstrate the ability to read research journal articles or science news and think critically to assess the information in context of real-world problems and ethics.
**Objective IIIB**

Demonstrate the ability to communicate experimental results orally and in written formats.

**Objective IIIC**

Recognize patterns in data and be able to extract information from multiple sources to critically evaluate scientific findings.