

BIOL 101 : Biology and Society

Historical development of scientific concepts, characteristics, and interaction of science and society from the perspective of biological sciences.

Credits 4

Lab Hours 3

Lecture Hours 3

Designation

DB

DY

Prerequisites

Credit in MATH 25, 26, 29, 82 or higher or equivalent preparation; and placement in ENG 100, or consent of instructor.

Course Outcomes

- Distinguish science as a way of knowing from other epistemological systems.
- Discuss the historical development of the discipline of biology into what it is today, relating the contributions made by significant individuals and concepts of the past to modern biology.
- Explain the major integrating principles of biology.
- Explain the origin and organization of the diversity of life on Earth.
- Describe how living systems function, relating structure to function, at all levels within the hierarchy of life from molecules to the biosphere.
- Solve problems in inheritance and genetics.
- Present informed, rational and objective opinions on biologically-related issues important to human society.
- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Demonstrate the use of some of the standard tools and methods of the biological scientist, such as microscopes, scales, spectrophotometers, computers, dissection dichotomous keys, and other analytical tools.
- Identify the major systematic groups to which specimens of living things belong.