BIO 111: General Biology I

This course is designed for non-science and health science majors. Science majors should take BIO 121. This course is an introductory survey of biological principles and topics representing a range of levels of organization, including general background chemistry, cell biology, genetics, evolution and ecology. Three lecture hours and two laboratory hours per week. Instructional Support Fee applies. Gen. Ed. Competencies Met: Scientific Reasoning and Discovery.

Course Student Learning Outcomes

1. Define and explain the basics of biological concepts such as common traits of living organisms, genetics, cell theory, evolution, and ecology. 2. Apply the fundamentals of the Scientific Method to solve problems. 3. Describe the general principles of carbohydrates, lipids, proteins, and nucleic acids as building blocks of living things. 4. Explain the role of enzymes in the different biochemical reactions within cells, as well as the release of chemical energy. 5. Describe the most important points in cellular events, including cell division, energy production, and cell-to-cell communication. 6. Explain heredity using the main principles of Mendelian and Non-Mendelian Genetics. 7. Explain the role of evolution and natural selection in the diversity of our ecosystem and its application to human diversity and disease. 8. Describe the general traits that help us to classify the major Domains and Kingdoms in the Tree of Life.
Credits: 4
Program: Biology