

SCI 115 – Introduction to Biology

Course Description

Provides an overview of fundamental concepts in biology, as well as the process of biological inquiry using the scientific method. Covers the properties and characteristics of living cells, organisms, and ecosystems, and the relevance of this knowledge for contemporary issues in medicine, agriculture, and the environment. Lab portion of the course reinforces basic concepts.

Instructional Materials

Starr, C., Evers, C. A., & Starr, L. (2013). *Biology today and tomorrow without physiology* (4th ed.). Belmont, CA: Brooks / Cole Publishing Co. (Cengage Learning)

Course Learning Outcomes

1. Classify living organisms and assess their effect of the biosphere.
2. Describe the structure and function of cells.
3. Analyze energy transformations in a cell.
4. Examine DNA structure, and function, gene expression, and control.
5. Describe the stages of the cell cycle, including mitosis.
6. Describe the processes of sexual reproduction.
7. Compare and contrast Mendelian and non-Mendelian patterns of inheritance.
8. Discuss the various applications of genomics and biotechnology.
9. Trace the evolution of early life forms and viruses, as well as Plantae, Fungi, Protista, and Animalia.
10. Analyze population ecology, communities, and ecosystems.
11. Use technology and information resources to research issues in biology.
12. Write clearly and concisely about biology using proper writing mechanics.