

## **BIOL 101 Principles of Biology I**

BIO 101 provides students with an introduction to the fundamental principles of biology. This course covers the basis of life: cells, macromolecules, energy flow, genetics and inheritance, evolution and biodiversity, and ecology. (*Pre-requisites: BIOL 101L* )

### **Course Learning Outcomes:**

By the end of the course, students will be able to:

1. Understand the structure and function of cells and macromolecules
2. Explain the processes of cellular metabolism, photosynthesis, and the flow of energy through ecosystems
3. Explain cellular replication, heredity, and genetics
4. Understand life on Earth from the perspective of its evolutionary history
5. Identify Earth's various biomes and the relationship between humans, ecosystems, and biodiversity.
6. Explain how biology can resolve issues related to human health, our society, and the future of life on Earth.

### **Textbook & Course Materials:**

- *Campbell Essential Biology* by Simon et al., 6<sup>th</sup> Global Edition (Pearson)

### **Course Content:**

1. Cells
2. Genetics
3. Evolution and Diversity
4. Ecology