

## **BIO 112 GENERAL BIOLOGY II**

### **COURSE DESCRIPTION:**

Prerequisites: BIO 111

Corequisites: None

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. Laboratory exercises include microscope observations and dissections to reinforce topics discussed in lecture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.* Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

### **LEARNING OUTCOMES:**

After completion of this course, the student will demonstrate basic knowledge in each of the following:

- a. Characteristics of the phyla in the kingdoms Monera, Protista, Fungi, Plantae, and Animalia
- b. Comparative plant anatomy and physiology
- c. Comparative animal anatomy and physiology
- d. Ecological principles and applications

### **OUTLINE OF INSTRUCTION:**

- I. Taxonomy
  - A. Principles of Taxonomy.
  - B. Five major Kingdoms.
- II. Kingdom Animalia
  - A. Animal diversity and evolution.
  - B. Comparative Anatomy: animal tissues and organ systems.
- III. Kingdom Plantae
  - A. Plant diversity and evolution.
  - B. Structure of vascular plants.
  - C. Plant Physiology.

- IV. Ecology
- A. Population Ecology.
  - B. Community Ecology.
  - C. Ecosystem Ecology.
  - D. The Biosphere Ecology.

**REQUIRED TEXTBOOKS:**

Mader, S. S. Biology. 10<sup>th</sup> ed. New York: McGraw-Hill Higher Education, 2007.

Van De Graaff, K.M. and Crawley, J.L. A Photographic Atlas for the Biology Lab, 6<sup>th</sup> ed. Englewood, CO: Morton Publishing Company, 2009.

**SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:**

Numerous supplementary texts, programmed materials, and audiovisual packages are available in the Educational Resources Center. These materials may be utilized to reinforce the lecture and lab material or to provide material for independent study by the student.

**STATEMENT OF STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 536-7207, ext 1418 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.