COLLEGE NAME: El Centro College
COURSE TITLE: Biology for Science Majors II
COURSE NUMBER: BIOL 1407

COURSE PREREQUISITE:
One of the following must be met: (1) Developmental Reading 0093 AND Developmental Writing 0093; (2) English as a Second Language (ESOL) 0044 AND 0054; or (3) have met Texas Success Initiative (TSI) Reading and Writing standards AND DCCCD Writing score prerequisite requirement.

COURSE DESCRIPTION:
An introductory survey of current biological concepts for students majoring in the sciences. Emphasis will be placed on topics which include evolution, biological diversity, ecology, and comparative structure and function of organisms.

CREDIT HOURS: 4 (3 Lec., 3 Lab)

CORE CURRICULUM OBJECTIVES

STUDENT LEARNING OUTCOMES (SLOs)
1. Define evolution and differentiate between the competing concepts in evolution.
2. Demonstrate the phylogenetic relationships between major taxonomic groups.
3. Discuss common characteristics of the major animal phyla and identify representative species for each.
4. Categorize plant species into the major divisions and explain the advantages/success of angiosperms.
5. Explain the ecological relationships that occur at the population, community, and ecosystems levels.

REQUIRED MATERIALS:
Biological Science 4th edition by Scott Freeman packages*:
- or full textbook with or without Mastering Biology
Laboratory Exercises available on eCampus

*Packages that include the volume(s) and access to the Mastering Biology site can only be purchased through the ECC bookstore or www.mypearsonstore.com. Text and access to MB can be purchased separately, but will most likely be more expensive.

A student of El Centro College is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer. THECB TAC Rule 4.218 (c)
COURSE OUTLINE:
Students will complete a total of thirteen (13) assignments consisting of a Lecture and Lab component.

- Lecture presents the fundamental theory of biological topics. Four units will be covered and assessed: Evolution, Eukaryote Diversity I, Eukaryote Diversity II, and Ecology.
  - Lecture Assessment
    - 13 Tests
    - 13 Essays
    - 13 Discussions

- Laboratory elaborates upon the theories presented in lecture through the use of "hands on" learning experiences and may incorporate material not discussed in the lecture portion. Quizzes will be given at the beginning of each lab. Lab Projects will be completed for each unit and consist of an Evolution Presentation, Plant Lab Report, Insect Collection, and Ecology Research Paper.
  - Lab Assessment
    - 4 Lab Projects
    - 13 Lab Quizzes

- Individual lectures/labs will cover the following topics:
  - Principals of Evolution
  - Natural Selection
  - Population Genetics
  - Evolutionary Mechanisms
  - Speciation
  - Phylogenies
  - History of Life
  - Viruses
  - Bacteria
  - Protists
  - Fungi
  - Green Algae
  - Plant Diversity
  - Animal Diversity
  - Human Evolution
  - Animal Form & Function
  - Behavior
  - Population Ecology
  - Community Ecology
  - Ecosystems

DISCLAIMER
The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student.

The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.

POLICIES

GENERAL INSTITUTIONAL POLICIES

COURSE-RELATED INSTITUTIONAL POLICIES