

BIOL 1107 Laboratory
Biology II Majors

Western Texas College

- I. Course description:
 - A. This laboratory-based course accompanies Biology 1307, Biology for Science Majors II. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals.
 - B. Prerequisite/Co-requisite: BIOL 1307

- II. Student Learning Outcomes:
 - A. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
 - B. Describe phylogenetic relationships and classification schemes.
 - C. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
 - D. Describe basic animal physiology and homeostasis as maintained by organ systems.
 - E. Compare different sexual and asexual life cycles noting their adaptive advantages.
 - F. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends
 - G. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
 - H. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
 - I. Effectively communicate the results of scientific investigations in a project-based learning environment.

- III. Assessment:

Grades will be derived from periodic quizzes and exams and lab participation is considered a factor in overall assessment.

 - A. Four quizzes
 - B. 2 Exams (Midterm and Final)
 - C. Lab participation

- IV. Required materials:
 - A. Online Lab Courses: Science Interactive Kit SKU# SI-10131-BK-01
 - B. Campus Lab Courses: Exploring Biology in the Lab. Volume II. Murray P. Pendarvis, John L. Crawley. ISBN: 978161731839

V. Topics:

Lab	Topic
1	Understanding evolution
2	Classification
3	The microscope & bacteria
4	Protists
5	Seed plants (gymnosperms)
6	Seed plants (angiosperms)
7	Fungi
8	Sea creatures
9	Lophotrochozoans
10	Ecdysozoans
11	Deuterostomes
12	Vertebrate dissections
13	Body structures in Homo sapiens
14	Nervous systems and special senses in Homo sapiens
15	Cardiovascular and respiratory systems in Homo sapiens
16	Evolution

VI. Other Policies, procedures, and important dates. Please refer to the WTC Course Catalog for the following:

- A. Campus Calendar
- B. Final Exam schedule
- C. How to drop a class
- D. Withdrawal information

- E. Student Conduct/Academic Integrity
- F. Students with disabilities.