Northwest Arkansas Community College
Division of Science & Mathematics

BIOL 1014 General Biology II

Catalog Description: An introductory course that examines the common characteristics of life, such as movement, energy usage, reproduction and responsiveness through study of the diversity of life. The general structural organization and basic physiology of the phyla of the five kingdoms will be considered along with elements of their interdependence (ecology) and change through time (evolution). Three hours lecture and 3 hours laboratory weekly.

Prerequisite: Principles of Biology I with a grade of C or better, or its equivalent is required.

Credit hours/ Contact hours/ Load hours: 4/6/5

Target Audience/Transferability: A survey course intended for science majors and non-science majors alike. In general, BIOL 1014 applies toward the general education requirements for baccalaureate degrees granted by state funded colleges and universities. Though this course currently has no equivalent at the University of Arkansas it will transfer. It is important for students to consult with the transfer institution or college within the university to determine how the course will be accepted.

Student Learning Outcomes: Students completing this course will:

- Apply the scientific method by gathering and analyzing data, drawing conclusions and presenting findings in a written form.
- Demonstrate college-level knowledge of the study of origin and evolution, systematic classification, and the three domains.
- Identify the affect that the organisms studied have on man and the environment.

Required Text(s): Mader, Biology, 10 th ed. W. C. Brown, 2010
Recommended Text(s):

- Van De Graaff & Crawley, Photographic Atlas of the Biology Laboratory, 6th Edition, Morton, 2009

Topics: Relevant elements of evolution and ecology are included in the following topics:

- Diversity of Life
  - Classification
  - Viruses & Procaryotes
  - Survey of the five commonly recognized Kingdoms
- Plant Structure and Function
  - Classification
  - Plant Anatomy
  - Physiology
  - Life cycles including growth, development and reproduction
- Animal Structure and Function
  - Classification
  - Comparisons of organization
  - Tissues, organs and organ systems
  - Reproduction
  - Development

Required Methods of Instruction: Instruction to include presentation of course materials through lectures, demonstrations, and interactive discussion of the respective topics. Required laboratory activities are to include use of scientific inquiry, working in groups and practice of various critical thinking skills.

Forms of Assessment: Lab practical exams are a required part of grading.