

# Alexandria Technical and Community College

## BIOL 1452: General Biology II

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 3

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites:

This course requires any of these six prerequisites

READ 0900 - College Prep Reading (Minimum grade: 2.0 GPA Equivalent and Number of Years Valid: 5)

A score of 1047 on test MN Comprehensive Assessment Reading

A score of 2 on test Reading

A score of 21 on test ACT Reading

A score of 480 on test SAT Evidence-Based Read/Write Composite

A score of 70 on test Accuplacer Reading Comprehension

Corequisites: None

MnTC Goals: Goal 03 - Natural Science, Goal 10 - People/Environment

This course meets Minnesota Transfer Curriculum (MnTC) goal area 3 and 10. This course examines the diversity of life, evolutionary theory, and ecology. Specific topics include speciation, the history of life on Earth, the diversity and structures of living organisms, species distributions and interactions, and ecosystems. Human effects on species and ecosystems will be discussed in the context of conservation biology. Previous completion of BIOL 1450 is recommended but not required. Prerequisite(s): College level reading on placement test or a minimum grade of "C" is required in READ 0900.

**B. COURSE EFFECTIVE DATES:** 05/22/2006 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Understand and describe evolutionary theory and the process of natural selection.
2. Describe the history of life on Earth over the geologic time scale.
3. Illustrate the diversity of life through evolutionary relationships among organisms.
4. Identify major taxa of organisms by morphology.
5. Understand how organisms interact with each other and their environment.
6. Evaluate the major threats to biodiversity.
7. Examine the effect of humans on the environment.
8. Conduct laboratory experiments to understand evolution and species ecology.

### D. LEARNING OUTCOMES (General)

1. The learner will demonstrate knowledge of evolutionary theory.
2. The learner will demonstrate knowledge of the history and diversity of life on Earth.
3. The learner will demonstrate knowledge of population and community ecology.
4. The learner will demonstrate knowledge of ecosystem ecology and conservation biology.

## **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

### Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

### Goal 10 - People/Environment

1. Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
2. Propose and assess alternative solutions to environmental problems.
3. Articulate and defend the actions they would take on various environmental issues.

## **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

## **G. SPECIAL INFORMATION**

None noted