

Alexandria Technical and Community College

BIOL 1431: People and the Environment Lab

A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: 0

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 03 - Natural Science

This course meets Minnesota Transfer Curriculum (MnTC) goal area 3. When this course is taken with BIOL1430 (lecture), it meets Minnesota Transfer Curriculum (MnTC) goal area 3 and 10. The lab focuses on giving learners an understanding of how environmental issues and problems are studied and sampled in the field. Numerous field trips to different sites in Douglas County (or provided visual images) allow sampling and visual observation of activities affecting the environment.

B. COURSE EFFECTIVE DATES: 01/01/2001 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Describe ecological succession.
2. Gain an understanding of lake water quality standards by analyzing lake water samples.
3. Gain knowledge of the scientific method and perform experiments using the method.
4. Identify species of plankton by examining microscopic samples.
5. Perform activities to demonstrate how a dichotomous key is used to classify biological organisms.
6. Perform experimental exercises to discover species biodiversity.
7. Observe historical environmental changes and discuss solutions for environmental sustainability.

D. LEARNING OUTCOMES (General)

1. The learner will be able to successfully sample aquatic (or terrestrial) ecosystems and communicate their findings and analysis in writing.

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

Goal 03 - Natural Science

1. 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.
2. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
3. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted