

# Dakota County Technical College

## BIOL 1400: Ecology Field Studies

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 3

Lab Hours/Week: 1

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 03 - Natural Science

An inquiry-based course that covers the fundamental principles of ecology, conservation, and sustainability. Students will have the opportunity to learn through laboratory, field work, and lecture activities. Topics include biodiversity, a survey of biomes, populations, interrelationships in biological communities, ecological succession, energy flow, nutrient cycling, physiological ecology, and human impacts on ecosystems.

Meets MnTC Goal 3

**B. COURSE EFFECTIVE DATES:** 01/14/2008 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. increase and improve understanding of how science operates
2. increase and improve understanding of how to interpret scientific research and findings
3. conduct primary research
4. increase knowledge of ecological principles
5. develop an appreciation and knowledge of nature and the role of humans in their ecosystems
6. improve reading, listening, writing, and speaking skills
7. improve group work skills

### 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.

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted