

# Minnesota State University Moorhead

## BIOL 308: Pacific Northwest Ecology

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 10 - People/Environment

This three credit summer travel course allows students to study general ecological principles and regional natural history within the context of a variety of ecosystems in the Pacific Northwest, including coastal, alpine, freshwater stream, lake, and river, and temperate rainforest systems. The ecological consequences and the science behind specific environmental and conservation issues are explored. The concept of local and global sustainability is a pervasive theme throughout the course. Prerequisite: One college-level science course. MnTC Goal 10.

**B. COURSE EFFECTIVE DATES:** 05/18/2009 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. The concept of sustainability.
2. Pathways and trade-offs to a sustainable future.
3. The structure, function, and processes of Pacific Northwest ecosystems (climatic, hydrologic, soils, social, and biological systems).
4. Understand how socio-cultural variables affect the ways in which environments are perceived and managed, and the ways in which people or societies react to environmental challenges.

### D. LEARNING OUTCOMES (General)

1. To become familiar with general ecological processes as they apply to rocky coastal, temperate rainforest, freshwater, and alpine ecosystems in the Pacific Northwest.
2. To become familiar with common organisms inhabiting the above ecosystems and begin to explore the natural history of these organisms.
3. To gain an appreciation for the field of conservation biology as it specifically applies to ecosystems in the Pacific Northwest.
4. To appreciate the complexity of the balance between human activity, and habitat conservation.
5. To understand the contributions and limitations of science when applied to complex environmental issues.
6. To experience the physical and the psychological connectedness that exists between humans and their environments.
7. To recognize societal decisions and actions towards a sustainable future.

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

### **Goal 10 - People/Environment**

1. Explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
2. Discern patterns and interrelationships of bio-physical and socio-cultural systems.
3. Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
4. Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
5. Propose and assess alternative solutions to environmental problems.
6. 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