

Inver Hills Community College

BIOL 1116: Environmental Science (no lab)

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

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

Introduces students to fundamental concepts in ecology focusing on human impact and exploitation of the environment stressing the limits of the biosphere with respect to resources, energy, and pollution.

Activities may include discussion, group activities, guest speakers and films.

B. COURSE EFFECTIVE DATES: 01/01/1998 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Basic principles of ecology (20%)
2. Human population dynamics (10%)
3. Food, soil, agriculture (10%)
4. Water resources and pollution (10%)
5. Air resources, climate change, and pollution (10%)
6. Solid and toxic wastes (10%)
7. Plant and animal resources (10%)
8. Energy resources - renewable and nonrenewable (10%)
9. Environmental ethics: Planning for a sustainable future (10%)

D. LEARNING OUTCOMES (General)

1. Explain ecological principles
2. Discuss the relationship between population, resource use, and pollution
3. Describe the processes contributing to climate change, the impact of climate change and potential solutions
4. Describe synergistic relationships among social, legal, political, religious, and environmental sectors
5. Relate personal awareness to human impact on the environment in a way that also serves as a basis for becoming informed, responsible and scientifically literate citizens in an increasingly high technology society
2. 6. Analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution
7. Describe the role of a world citizen and the responsibility world citizens share for their common global future

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

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
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.

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