

Inver Hills Community College

BIOL 1001: Humans In The Ecosystem: Renewable Energy

A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 1

Lab Hours/Week: 1

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 10 - People/Environment

Introduces students to different types of renewable energy through service learning and active participation in a large education event. Students will participate as hands-on volunteers at the Midwest Renewable Energy Association Fair, one of the largest energy fairs in the country, with over 22,000 attendees. Students will travel to the site in Wisconsin, camp out in an environmentally responsible manner during the fair, assist the organizers in various capacities, and attend informational workshops during the fair itself. This will be supplemented with classroom teaching before, during, and after the event. Students will have an opportunity to see working examples of various renewable energy technologies, and investigate one or more of these in depth.

B. COURSE EFFECTIVE DATES: 05/26/2009 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Basic concepts of solar, wind, geothermal, biomass, and similar energy sources: 8%
2. Experiential learning: 28%
3. Integration of learning: 3%
4. Selected in-depth investigation of particular sustainable-living topics (workshop based): 25%
5. Service learning: 28%
6. Terminology and vocabulary for ecology and energy: 5%
7. Trip orientation: 3%

D. LEARNING OUTCOMES (General)

1. Students will evaluate the advantages and disadvantages of major renewable energy sources
2. Students will analyze the appropriate use of different energy sources
3. Students will investigate at least one alternative source in depth
4. Students will understand and use appropriate technical terminology

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

Goal 10 - People/Environment

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