

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title: Green Building and Sustainable Design

Submitted By:

Bob Schroeder

Semester Course Prefix and Number: CARP 1250

Approval Date: April 2009

Number of Credits: 3

Number of Lecture Credits: 3

Semester(s) Offered:

Number of Lab Credits:

Number of Lab Hours:

Spring

Number of Studio/Demonstration/Internship Credits:

Class Size: 30

Negotiated by AASC on: 4-21-09

Course Purpose Code:

0 – Developmental Courses

1 – Non-transferable, General Education

X 2 – Technical course related to career programs

3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)

4 – Other college course not considered a part of general education (MNTC) (e.g. computer science, health, physical education)

5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements or intended for transfer.

9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:

This course will be an introduction to the philosophy of green building, sustainable design and conserving energy. Students will learn design techniques for building durable, energy efficient homes. This course has a "green" emphasis which will examine the use of resources such as energy, water, and materials in building design, as well as decreasing waste in the construction process.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s): None

Reading Prerequisite: None

Composition Prerequisite: None

Mathematics Prerequisite: None

Career Programs and Transfer Majors Accessing this Course:

This course would be most valuable to engineering and construction trades majors.

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:

(Notes: No more than two goals may be met by any one course. Curriculum Committee review and the Chief Academic Officer's approval are required.)

0. X None

6. The Humanities and Fine Arts

1. Communications

7. Human Diversity

2. Critical Thinking

8. Global Perspectives

3. Natural Sciences

9. Ethical and Civic Responsibility

4. Mathematical/Logical Reasoning

10. People and the Environment

5. History and the Social and Behavioral Sciences

Learning Outcomes: (including any relevant competencies listed in the Minnesota Transfer Curriculum)

Upon completion of this course, the student will be able to:

- Define the proper techniques for the responsible use and residual management of the natural resources used in building construction.
- Define the building envelop system.
- Describe the process of designing and building environmentally sustainable residential structures that are affordable, safe, comfortable and durable.
- Demonstrate an understanding of the reduce, re-use, recycle concept as applied to green building design and construction.
- Apply efficiency evaluation and remediation techniques to their current dwelling places.

Student Assessment Methods:

Tests, quizzes, and debates

Use of Instructional Technology: (includes software, interactive video and other instructional technologies):

Internet research, video, PowerPoint

Outline or Statement of Major Course Content:

This course will focus on protecting our environment while continuing to build residential structures that are affordable, efficient, comfortable, and durable.

Additional Special Information: (special fees, directives on hazardous materials, etc.)

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

Approvals:

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		
Academic Affairs Standards Committee		
Chief Academic Officer		

Distribution: Original – Administrative Office
Copies: Curriculum Committee Chair, AASC Chair, Transfer Specialist, Originating Faculty Member, Scheduler, Records, Student Services
Revised: October 2006