

COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

Prepared by: Joseph Costion MA
Revised by:
Status: Permanent

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A. Identification:

1. Subject Area: Green Building Trades Training
2. Course Number: CTM 131
3. Course Title: Green Building Introduction
4. Credit Hrs: 1 Lecture Hrs: 1 Lab Hrs: 0
5. Catalog Description:

Introduction to Green Building presents the Core Concepts and underlying reasons for approaching construction from a Sustainable methodology perspective. Several Categories of Green Building are introduced and explored. Categories include Building Site, Energy performance concepts & issues, Water Utilization, Indoor Environment, Materials resourcing and Recycling approaches. Green Building myths are dispelled. Co-requisite: CTM 123 recommended or construction experience. May be taken for S/U credit with instructor approval. One lecture.

B. Course Goals:

Introduce the student to Core Concepts and a Categorical approach to Green Building. Give students the reasons for approaching construction from a Sustainable perspective to improve housing stock performance standards and Indoor Living environments simultaneously.

C. Course Outcomes/Competencies:

Students will:

1. Demonstrate understanding of the Core concepts of Green Building.
2. Identify the differences in several Categories of Green Building.
3. Identify How & why each category is relevant to building.
4. Explain Sustainability,
5. Explain the fundamentals of Sustainable Issues and Consequences.
6. Explain fundamental Building Site Green design considerations.
7. Identify basic Modes of Heat Transfer.
8. Determine proper R values for building envelope systems
9. Calculate Energy performances.
10. Solve calculations for specific Energy loads of Buildings.
11. Identify water consumption patterns
12. Identify water conserving implementation methods.
13. Identify why a building material is considered to be Green.
14. Identify efficient building Materials & Uses.
15. Explain the concept of Good Indoor Air Quality
16. Explain several issues related to poor Indoor Air Quality.
17. Identify specific types recyclable materials from construction processes.
18. Explain how to minimize waste of materials
19. Explain how waste materials can be recycled or reused

20. Identify & dispel several green Building Myths.

D. Assessment of Course Outcomes

Summative, direct measures of the learning outcomes for this course may include one or more of the following:

Essay questions on exams that focus on content that supports the course outcomes

Student will complete a course project on green Building fundamentals.

Departmental assessment instruments will be selected at the discretion of the department chair.

E. Course Content:

- 1.
2. Core concepts of Green Building.
3. Categories of Green Building.
4. How & why each category is relevant to building.
5. Sustainability defined,
6. Sustainable Issues and Consequences.
7. Fundamental Building Site Green design considerations.
8. Basic Modes of Heat Transfer.
9. Proper R values for building envelope systems
10. Energy performances Calculations.
11. Energy loads of Buildings.
12. Water consumption patterns
13. Water conserving implementation methods.
14. Why building material is considered to be Green.
15. Efficient building Materials & Uses.
16. The concept of Good Indoor Air Quality
17. Several issues related to poor Indoor Air Quality.
18. Sypes recyclable materials from construction processes.
19. How to minimize waste of materials
20. How waste materials can be recycled or reused
21. Green Building Myths.