

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. CRPT

COURSE NUMBER: 1155

NUMBER OF CREDITS: 2

Lecture: 1 Lab: 1 OJT 0

Course Title:
Building Science

Catalog Description:
Building Science will teach students about the house as a system and will include advanced topics in building shell components, air sealing, insulation, air quality and health and safety.

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

Goal 1: Communication: ____ by meeting the following competencies:

Goal 2: Critical Thinking: ____ by meeting the following competencies:

Goal 3: Natural Sciences: ____ by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: ____ by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: ____ by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: ____ by meeting the following competencies:

Goal 7: Human Diversity: ____ by meeting the following competencies:

Goal 8: Global Perspective: ____ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: ____ by meeting the following competencies:

Goal 10: People and the Environment: ____ by meeting the following competencies:

Topics to be Covered (General)
House as a system
Building shell components
Thermal envelope
Health and safety
Testing the building shell
Air sealing and insulation
Total building performance
Evaluating energy performance, comfort, safety and structural integrity of homes
Conducting a blower door test

Student Learning Outcomes
Demonstrate an understanding of the principles of energy and building science.
Demonstrate an understanding of industry terminology.
Identify building construction types.
Identify building shell weak points.
Perform a blower door test.
Identify cost effective energy retrofits.
Conduct a residential home energy audit.
Identify possible health and safety issues during an energy audit.

Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**If yes, please list the competencies below*

Revised Date: 1/2022