MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

Faculty members are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. CRPT COURSE NUMBER: 1155

NUMBER OF CREDITS: 2 Lecture: 1 Lab: 1

<table>
<thead>
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<th>Course Title:</th>
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<tr>
<td>Building Science</td>
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<th>Catalog Description:</th>
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<td>Students in this course will learn about the house as a system and will include advanced topics in building shell components, air sealing, insulation, air quality and health and safety.</td>
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FULFILLS MN TRANSFER CURRICULUM AREA(S)

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:

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<th>Prerequisites or Necessary Entry Skills/Knowledge:</th>
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<td>None</td>
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Topics to be Covered

- 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

1) Demonstrate an understanding of the principles of energy and building science.
2) Demonstrate an understanding of industry terminology.
3) Identify building construction types.
4) Identify building shell weak points.
5) Perform a blower door test.
6) Identify cost effective energy retrofits.
7) Conduct a residential home energy audit.
8) Identify possible health and safety issues during an energy audit.

Is this course part of a transfer pathway:  Yes ☐  No ☒

Revised Date:  May 2020