# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
## COURSE OUTLINE

**DEPT.**  ELEC  
**COURSE NUMBER:**  2250  
**NUMBER OF CREDITS:** 3  
**Lecture:** 2  
**Lab:** 1

### Course Title:
Heating and Ventilation Controls

### Catalog Description:
Introduces basic heating and cooling system installation, control and troubleshooting.

**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:

### Prerequisites or Necessary Entry Skills/Knowledge:

### Topics to be Covered (General)
- Installation and troubleshooting of heating and cooling systems
- Electrical symbols and diagrams
- Wiring of heating and cooling systems
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<tr>
<th><strong>Student Learning Outcomes</strong></th>
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<tbody>
<tr>
<td>Identify electrical symbols</td>
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<td>Examine schematic diagrams</td>
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<tr>
<td>Identify components of heating and cooling systems</td>
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<td>Describe electric heating systems including forced air and boiler</td>
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<td>Describe gas heating systems including forced air and boiler</td>
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<tr>
<td>Describe Cooling systems</td>
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<tr>
<td>Wire electrical power for heating, ventilation and cooling systems</td>
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<tr>
<td>Wire electrical controls for heating, ventilation and cooling systems</td>
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<th><strong>Is this course part of a transfer pathway:</strong></th>
<th>Yes ☐</th>
<th>No ☒</th>
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*If yes, please list the competencies below*

Revised Date: 02/14/2020