

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

DEPT. ELEC

COURSE NUMBER: 2250

NUMBER OF CREDITS: 3

Lecture: 2 Lab: 1 OJT: 0

### Course Title:

Heating and Air Conditioning Controls

### Catalog Description:

Heating and Air Conditioning Controls introduces basic heating and cooling system installation, control and troubleshooting.

### Prerequisites or Necessary Entry Skills/Knowledge:

None

### 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:

### Topics to be Covered

Installation and troubleshooting of heating and cooling systems

Electrical symbols and diagrams

Wiring of heating and cooling systems

### Student Learning Outcomes

Identify electrical symbols

Examine schematic diagrams

Identify components of heating and cooling systems

Describe electric heating systems including forced air and boiler

Describe gas heating systems including forced air and boiler

Describe Cooling systems
Wire electrical power for heating, ventilation and cooling systems
Wire electrical controls for heating, ventilation and cooling systems

<b>Is this course part of a transfer pathway: Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/>
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Revised Date: 02/14/2020