

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. DSL

COURSE NUMBER: 1142

NUMBER OF CREDITS: 3

Lecture: 1 Lab: 2 OJT 0

Course Title:
Heating and Air Conditioning Systems

Catalog Description:
Heating and Air Conditioning Systems analyzes cab heating and ventilation systems used in all types of units used in the industry today as well as servicing and repair of the system for comfort of in-cab climate. The course discusses concerns that need to be addressed when making repairs to the heating and air conditioning system.

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
Air conditioning components.
Heating systems
Electrical operation
Temperature control

Student Learning Outcomes
Discuss the operation of air conditioning systems
Illustrate how heating and ventilation systems work together and on their own
Diagnose and repair heating and ventilation systems
Practice reclaiming and recharging of air conditioning systems according to EPA standards
Explain flushing procedures in heating and air conditioning systems

Determine system cycle events

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

Revised Date: 8/2021