

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. MECH

COURSE NUMBER: 1120

NUMBER OF CREDITS: 3

Lecture: 3 Lab: 0 OJT: 0

Course Title:

Pneumatic Theory

Catalog Description:

Pneumatic Theory introduces the students to gas laws and principles, and pneumatic component identification, functions and applications.

Prerequisites or Necessary Entry Skills/Knowledge:

Concurrent enrollment with MECH 1131.

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

Pneumatic system components.

Pneumatic system applications.

Pneumatic gas laws.

Pneumatic symbols.

Pneumatic circuit design.

Student Learning Outcomes

Address safety issues related to pneumatic systems.

Identify different components of a pneumatic system.

Describe how pneumatic principles work.
Explore pneumatic gas laws.
Apply calculations and equations to basic pneumatic circuits.
Interpret pneumatic symbols.
Read schematic drawings.
Describe function of pneumatic system components.
Design pneumatic circuits.

Is this course part of a transfer pathway: Yes No

**If yes, please list the competencies below*

Revised Date: 1/26/2022