

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. MECH

COURSE NUMBER: 1131

NUMBER OF CREDITS: 1

Lecture: 0 Lab: 1 OJT: 0

Course Title:
Pneumatic Lab

Catalog Description:
Pneumatic Lab provides students with skills in plumbing, troubleshooting, and operation of basic pneumatic circuits.

Prerequisites or Necessary Entry Skills/Knowledge:
Concurrent enrollment with MECH 1120

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
Basic pneumatic circuits
Cylinder sequencing circuits.
Air/oil circuits.
Dual supply pneumatic circuit.
Pneumatic speed control circuits.
Rodless cylinder circuits.
System pressure and cylinder speed tests.
Two-hand safety circuits.
Vacuum circuits.

Student Learning Outcomes
Identify and control potential safety hazards and implement safe working practices.
Demonstrate the ability to test the basic functions of pneumatic components to determine proper operation.
Design and connect pneumatic circuits.
Troubleshoot basic pneumatic systems.

Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

***If yes, please list the competencies below**

Revised Date: 1/26/2022