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.
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<th>Student Learning Outcomes</th>
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<td>Identify and control potential safety hazards and implement safe working practices.</td>
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<td>Demonstrate the ability to test the basic functions of pneumatic components to determine</td>
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<td>proper operation.</td>
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<td>Design and connect pneumatic circuits.</td>
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<td>Troubleshoot basic pneumatic systems.</td>
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<th>Is this course part of a transfer pathway: Yes ☐ No ☒</th>
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*If yes, please list the competencies below

Revised Date: 1/26/2022