Course Title:
Electrical Circuits Fundamentals Lab

Catalog Description:
Perform practical problems on both DC and AC circuits in the lab. Calculate series circuits, parallel circuits, capacitance circuits, and inductive circuits. Perform basic meter testing on circuits.

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:

Prerequisites or Necessary Entry Skills/Knowledge:
MATH 0092 or placement by multiple measures.

Topics to be Covered
Series, parallel, inductive, and capacitive circuits
Delta and wye circuits
Safety
### Student Learning Outcomes

<table>
<thead>
<tr>
<th>Activity</th>
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<tbody>
<tr>
<td>Apply Ohm’s law</td>
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<tr>
<td>Measure Watts</td>
</tr>
<tr>
<td>Measure Volts</td>
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<tr>
<td>Measure Amps</td>
</tr>
<tr>
<td>Connect series circuits</td>
</tr>
<tr>
<td>Connect parallel circuits</td>
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<tr>
<td>Test DC and AC circuits</td>
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</tbody>
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### Is this course part of a transfer pathway?

- **Yes**  
- **No** [X]

Revised 2-29-2020