Course Title:
Electrical Circuits Fundamentals

Catalog Description:
Describe the basic concepts of electricity from DC to AC. Calculate Ohm’s law formulas. Describe series circuits, parallel circuits, capacitance circuits, and inductive circuits. Calculate series circuits, parallel circuits, capacitance circuits, and inductive 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
Ohm’s Law
Series Circuits
Parallel Circuits
### Student Learning Outcomes

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<tbody>
<tr>
<td>Define Volts</td>
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<td>Define Amps</td>
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<td>Define Ohms</td>
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<td>Apply Ohm’s Law</td>
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<td>Describe Series Circuits</td>
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<td>Describe Parallel Circuits</td>
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<td>Solve Series Circuits</td>
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<td>Solve Parallel Circuits</td>
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<td>Describe Inductance</td>
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<td>Describe Capacitance</td>
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<td>Describe Series Parallel Circuits</td>
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