# Residential Wiring I

**Course Title:** Residential Wiring I

**Catalog Description:** Residential Wiring I describes electrical safety, general safety, the use and care of hand tools, the specialty tools, and equipment used for residential wiring. Apply National Electrical Codes related to residential wiring. Discuss wiring methods for residential wiring.

**Prerequisites or Necessary Entry Skills/Knowledge:** None.

**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**

- National Electrical Code for residential wiring
- Box fill calculations
- Service calculations

**Student Learning Outcomes**

- Identify wiring symbols
- Calculate box fill
- Install GFCI protected outlets
- Install exhaust fans
<table>
<thead>
<tr>
<th>Calculate floor area</th>
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<tbody>
<tr>
<td>Apply National Electrical Code</td>
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<tr>
<td>Install NM cables</td>
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<tr>
<td>Describe grounding requirements</td>
</tr>
<tr>
<td>Describe switch operations</td>
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<tr>
<td>Install various light switches</td>
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<tr>
<td>Install recessed light fixtures</td>
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<td>Make pigtail splices</td>
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**Is this course part of a transfer pathway:** Yes ☐ No ☒

*If yes, please list the competencies below

Revised Date: 1/1/2022