

## PROGRAM PURPOSE

Electrical construction and maintenance is a two-year program that provides broad fundamental training in the principles used to install electrical equipment and the mathematics necessary to plan electrical systems. National electric code and theory are taught throughout the program.

The first year provides theory and practice in electronics basics. Studies include the use of diagnostic test equipment and troubleshooting techniques while performing hands-on laboratory exercises. Areas covered include: AC and DC circuits, semi-conductor devices, electronic circuits and digital electronics. The second year begins with an in-depth study of commercial and industrial wiring techniques and lighting design.

Hands-on exercises include conduit bending installation and lighting and control system installation. Following a thorough study of rotating machinery, power system analysis, industrial wiring and motor controls are studied. Hands-on exercises include the planning, wiring and testing of motor control circuitry.

## CAREER OPPORTUNITIES

Graduates of this program will find employment opportunities with:

- Electrical contractors
- Service shops
- Power companies
- Industrial maintenance operations
- Industry equipment supplies

After necessary experience and license have been obtained, graduates may qualify for the following positions:

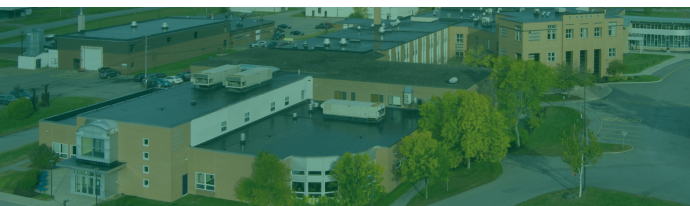
- Managers
- Supervisors
- Inspectors
- Operators of individual businesses



## APPLICATION PROCEDURE

*The following procedures constitute the admissions process:*

- 1 Submit an NMCC application.
- 2 Submit official high school transcript and/or HiSET/GED scores (current senior's ranking period grades).
- 3 Official college transcripts for applicants who have attended other post-secondary schools.
- 4 If SAT scores are not available, placement testing may be required.
- 5 Meet with an Admissions Counselor.
- 6 A campus tour is highly recommended.



## GET IN TOUCH

207-768-2785

[www.nmcc.edu](http://www.nmcc.edu)  
[nmccadmissions@maineccc.edu](mailto:nmccadmissions@maineccc.edu)

33 Edgemont Drive  
Presque Isle, ME 04769

**ELECTRICAL CONSTRUCTION & MAINTENANCE**  
2026-2027  
Associate in Applied Science Degree Program

| First Semester |         |                                   | C         | L         | CR        |
|----------------|---------|-----------------------------------|-----------|-----------|-----------|
| >              | ELE 112 | Basic Residential Wiring          | 2         | 2         | 3         |
| >              | ELS 115 | Basic Electricity/Electronics     | 3         | 0         | 3         |
| >              | ELS 116 | Basic Electricity/Electronics Lab | 0         | 6         | 2         |
|                | ENG 111 | English Composition               | 3         | 0         | 3         |
|                | MAT 122 | Technical Mathematics             | 2         | 2         | 3         |
|                |         |                                   | <b>10</b> | <b>10</b> | <b>14</b> |

| Second Semester |         |                                           | C         | L         | CR        |
|-----------------|---------|-------------------------------------------|-----------|-----------|-----------|
|                 | DIB 113 | Introduction to Digital Systems           | 2         | 2         | 3         |
|                 | DRR 117 | Blueprint Reading for Construction Trades | 2         | 2         | 3         |
| >               | ELS 124 | Industrial Electronics                    | 2         | 3         | 3         |
| >               | ELS 125 | Motors & Controls                         | 2         | 3         | 3         |
|                 |         | Social Science Elective                   | 3         | 0         | 3         |
|                 |         |                                           | <b>11</b> | <b>10</b> | <b>15</b> |

| Third Semester |         |                                             | C         | L         | CR        |
|----------------|---------|---------------------------------------------|-----------|-----------|-----------|
|                | EET 221 | Control Systems & PLCs                      | 2         | 3         | 3         |
| >              | ELC 110 | National Electrical Code                    | 3         | 0         | 3         |
| >              | ELE 210 | Electrical Construction & Maintenance I     | 3         | 0         | 3         |
| >              | ELE 212 | Electrical Construction & Maintenance Lab I | 0         | 9         | 3         |
|                | PHY 150 | Physics                                     | 3         | 2         | 4         |
|                |         |                                             | <b>11</b> | <b>14</b> | <b>16</b> |

| Fourth Semester |         |                                              | C         | L        | CR        |
|-----------------|---------|----------------------------------------------|-----------|----------|-----------|
|                 | COM 221 | Technical Communications                     | 3         | 0        | 3         |
| >               | ELC 116 | National Electric Code for Industry          | 3         | 0        | 3         |
| >               | ELE 222 | Electrical Construction & Maintenance II     | 3         | 0        | 3         |
| >               | ELE 223 | Electrical Construction & Maintenance Lab II | 0         | 9        | 3         |
|                 |         | Gen Ed Elective                              | 3         | 0        | 3         |
|                 |         | Humanities Elective                          | 3         | 0        | 3         |
|                 |         |                                              | <b>15</b> | <b>9</b> | <b>18</b> |

**Total Required** **63**

> **Major courses; a minimum grade of "C" or 2.0 is required**

Key: C=Class hours; L=Laboratory; CR=Credit hours

**Electrical Construction & Maintenance**  
2026-2027  
Certificate Program

| First Semester |         |                                   | C         | L         | CR        |
|----------------|---------|-----------------------------------|-----------|-----------|-----------|
| >              | ELC 110 | National Electrical Code          | 3         | 0         | 3         |
| >              | ELE 112 | Basic Residential Wiring          | 2         | 2         | 3         |
| >              | ELS 115 | Basic Electricity/Electronics     | 3         | 0         | 3         |
| >              | ELS 116 | Basic Electricity/Electronics Lab | 0         | 6         | 2         |
|                | MAT 122 | Technical Mathematics             | 2         | 2         | 3         |
|                |         |                                   | <b>10</b> | <b>10</b> | <b>14</b> |

| Second Semester |         |                                           | C         | L        | CR        |
|-----------------|---------|-------------------------------------------|-----------|----------|-----------|
|                 | DRR 117 | Blueprint Reading for Construction Trades | 2         | 2        | 3         |
| >               | ELC 116 | National Electric Code for Industry       | 3         | 0        | 3         |
| >               | ELS 124 | Industrial Electronics                    | 2         | 3        | 3         |
| >               | ELS 125 | Motors & Controls                         | 2         | 3        | 3         |
|                 | ENG 111 | English Composition                       | 3         | 0        | 3         |
|                 |         |                                           | <b>12</b> | <b>8</b> | <b>15</b> |

**Total Required** **29**

