NORTHERN MAINE COMMUNITY COLLEGE

ELECTRICAL CONSTRUCTION & MAINTENANCE

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

Graduates have the opportunity to sit for their Journeyman's license exam right after graduation.

CAREER OPPORTUNITIES

Graduates of this program will find employment opportunities as beginning electricians with:

- electrical contractors
- power companies
- service shops
- industrial maintenance operations
- electrical industry equipment suppliers

After necessary experience and licenses have been obtained, graduates may qualify for the folowing positions:

- managers
- supervisors
- inspectors
- operators of individual businesses.

APPLICATION PROCEDURE

The following procedures constitute the admissions process:

1. Submit an NMCC application along with a $20 application fee.
2. Submit official high school transcript and/or HiSET/GED scores (current senior's transcript should include completed 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. Individual interview required.
6. A campus tour is highly recommended.

An individual with a felony conviction may not be able to obtain licensure in certain professions.

Questions? Contact admissions@nmcc.edu

nmcc.edu

Northern Maine Community College · 33 Edgemont Drive · Presque Isle, ME 04769 · 207-768-2785

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ELECTRICAL CONSTRUCTION & MAINTENANCE

2020-2021 Curriculum

Associate in Applied Science Degree Program

First Semester		C	L	CR
COL 103	College Success	1	0	1
♦ **ELE 112**	**Basic Residential Wiring**	**2**	**2**	**3**
♦ **ELS 117**	**Basic Electricity**	**2**	**4**	**4**
ENG 111	English Composition	3	0	3
MAT 118	Electrical Math	4	0	4
		12	6	15

Second Semester				
DIB 113	Intro. 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
		11	10	15

Third Semester				
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 I Lab**	**0**	**9**	**3**
PHY 150	Physics	3	2	4
		11	14	16

Fourth Semester				
COM 221	Technical Communications	3	0	3
♦ **ELC 116**	**National Electrical Code for Industry**	**3**	**0**	**3**
♦ **ELE 222**	**Electrical Construction & Maintenance II**	**3**	**0**	**3**
♦ **ELE 223**	**Electrical Construction & Maintenance II Lab**	**0**	**9**	**3**
	Humanities Elective	3	0	3
	Elective	3	0	3
		15	9	18

TOTAL REQUIRED **64**

Certificate Program

First Semester		C	L	CR
♦ **ELC 110**	**National Electrical Code**	**3**	**0**	**3**
♦ **ELE 112**	**Basic Residential Wiring**	**2**	**2**	**3**
♦ **ELS 117**	**Basic Electricity**	**2**	**4**	**4**
MAT 118	Electrical Math	4	0	4
		11	6	14

Second Semester				
DRR 117	Blueprint Reading for Construction Trades	2	2	3
♦ **ELC 116**	**National Electrical 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
		12	8	15

TOTAL REQUIRED **29**

♦ ***Major courses; a minimum grade of "C" or 2.0 required.***

Key: C= Class Hours, L= Lab Hours, CR= Credit Hours

Students that graduate with an associate degree can apply 4,000 hours toward their Journeyman electrical license!

NMCC is an equal opportunity/affirmative action institution and employer. For more information, please call 768-2791.

207-768-2785

nmcc.edu