

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

After necessary experience and licenses have been obtained, positions may be available as:

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

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

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APPLICATION PROCEDURE

The following procedures constitute the admissions process:

- 1. An application form must be submitted accompanied by a non-refundable \$20 application fee.
- 2. An official high school transcript must also be submitted (current seniors' transcripts should include completed ranking periods).
- 3. HiSET/GED scores must be submitted by applicants who are not high school graduates.
- 4. Official college transcripts must be submitted by applicants who have attended other colleges or post-secondary schools.
- 5. Placement testing or appropriate SAT scores, individual interviews and campus tours are required, in most cases, prior to being admitted.
- 6. Admissions decisions are made as quickly as possible once a candidate's file is complete.
- 7. Accepted applicants are required to make a deposit within 30 days of acceptance. Students requesting on campus housing are required to submit an additional deposit to reserve space in the residential complex.

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

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2017-2018 Curriculum

Associate in Applied Science Degree Program

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First Semester			L	CR	
♦ ELE 112		2	2	3	
♦ ELS 117		2 2 3	4		
ENG 111		3	0	3	
MAT 118		_4_	0	4	
1417 (1 1 1 0	Licotrical Matri	11	6	14	
		• • •	O	17	
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	2 3	3	
♦ ELS 125	Motors & Controls	2	3	3	
SAE 119	Construction Safety	3	0	3	
0712 110	Social Science Elective	2 2 2 3 3	0	3 3 3	
	Cociai Colonico Elective	14	10	18	
		1-7	10	10	
Third Semo					
EET 221	Control Systems & PLCs	2 3	3	3	
♦ ELC 110	National Electrical Code	3	0	3 3	
♦ ELE 210	Electrical Construction	3	0	3	
	& Maintenance I				
♦ ELE 212	Electrical Construction	0	9	3	
	& Maintenance I Lab				
PHY 150	Physics	3	2	4	
	General Education Elective	1	0	<u>i</u>	
		12	14	17	
			• •		
<u>Fourth Ser</u>					
	Technical Communications	3	0	3	
♦ ELC 116	National Electrical Code	3	0	3	
	for Industry				
♦ ELE 222	Electrical Construction	3	0	3	
	& Maintenance II				
♦ ELE 223	Electrical Construction	0	9	3	
	& Maintenance II Lab				
	Humanities Elective	3	0	3	
	Elective	3	0	3	
		15	9	18	
TOTAL REQUIRED				67	
IOIAL RE	WOIKED			67	

Certificate Program

First Semester		С	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	3	0	3		
	for Industry					
♦ ELS 124	Industrial Électronics	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.

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

207-768-2785

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