

CONSTRUCTION TECHNOLOGY - ELECTRICAL, ASSOCIATE IN APPLIED SCIENCE DEGREE

NMC Code 653

The AAS in Electrical provides in-depth training and knowledge to those students who seek to have a well-balanced foundation of not only technical skills, but soft skills as well. Students completing this degree will find a wide range and availability of job opportunities. Electrical technicians have been in demand for installations, maintenance, repair, and support for industries ranging from private home owners to hospitals, manufacturers, and breweries. Technical training includes electrical theory, National Electrical Code, motors, generators, lighting, and control systems for residential through commercial/industrial applications. The curriculum is designed by the industry and aligned with State of Michigan electrical apprenticeship requirements. Information: (231) 995-2777.

Requirements

Major Requirements

Course	Title	Credits
General Education Requirements		
ENG 111	English Composition	4
Select one of the following:		3-4
BUS 231	Professional Communications	
ENG 112	English Composition	
ENG 220	Technical Writing	
Any Group 1 Humanities course		3
Math Competency ¹		4
Select one of the following:		4
ENV 103	Earth Science	
ENV 117	Meteorology & Climatology	
PHY 121	General Physics I	
Any Group 1 Social Sciences course		3
Occupational Specialty Requirements		
EGY 141	Solar Photovoltaic Tech I	3
ELE 101	Introduction to Electrical	3
ELE 105	Beg Residential Electrical	3
ELE 110	Electrical Code Studies I	3
ELE 111	Electrical Code Studies II	3
ELE 121	Adv Residential Electrical	3
ELE 125	Pre-Commercial Electrical	3
ELE 131	Commercial Electrical	3
ELE 135	Adv Commercial Electrical	3
ELE 142	Industrial Electrical	3
ELE 146	Adv. Industrial Electrical	3
Construction Technology Electives (see list)		6
Total Credits		60-61

Approved Electives

Course	Title	Credits
AVF 141	Remote Pilot Flight	3
AVF 211	Commercial Drone Operations ¹	4
AVF 241	Advanced Drone Operations ¹	3
CAR 101	Introduction to Carpentry	3
CAR 102	Intro to Woodworking	3
CAR 103	Construction Blueprint Reading	3
CAR 105	Foundations and Framing	3
CAR 121	Exterior Construction	3
CAR 125	Interior Construction ¹	3
CMT 107	Construction Supervision	4
CMT 207	Construction Cost Estimating ¹	3
EET 103	Electrical Studies I ¹	3
EET 204	Electrical Studies II ¹	3
EET 221	Industrial Controls ¹	3
EET 232	Programmable Logic Controllers ¹	3
EET 233	PLC Applications I ¹	3
EET 234	PLC Applications II ¹	3
EGY 101	Principles of Renewable Energy ¹	3
EGY 105	Sustainable Building Design	3
EGY 115	Residential Energy Efficiency	3
EGY 141	Solar Photovoltaic Tech I ¹	3
EGY 143	Solar Thermal Technology I ¹	3
EGY 145	Geothermal Technology ¹	3
ELE 101	Introduction to Electrical	3
ELE 105	Beg Residential Electrical ¹	3
ELE 110	Electrical Code Studies I ¹	3
ELE 111	Electrical Code Studies II ¹	3
ELE 121	Adv Residential Electrical ¹	3
ELE 125	Pre-Commercial Electrical ¹	3
ELE 131	Commercial Electrical ¹	3
ELE 135	Adv Commercial Electrical ¹	3
ELE 142	Industrial Electrical ¹	3
ELE 146	Adv. Industrial Electrical ¹	3
HVA 101	Introduction to HVAC/R	3
HVA 106	Fundamentals of Heating ¹	3
HVA 122	Refrigeration Fundamentals ¹	3
HVA 126	Residential and Commercial A/C ¹	3
HVA 132	Commercial A/C & Refrigeration ¹	3
HVA 136	EPA Certification ¹	3
PLU 101	Introduction to Plumbing	3
PLU 105	Plumbing Components ¹	3
PLU 121	Commercial Plumbing ¹	3
PLU 125	Plumbing Installation ¹	3

¹ Denotes courses with required prerequisites.

¹ Placement into MTH 122 Trigonometry **or** higher, **or** completion of MTH 121 College Algebra

Course Sequence Guide

Course	Title	Credits
Year 1		
Fall		
ENG 111	English Composition	4
Humanities: Any Group 1 course		3
Social Sciences: Any Group 1 course		3
ELE 101	Introduction to Electrical	3
Credits		13
Spring		
Select one of the following:		3-4
ENG 112	English Composition	
ENG 220	Technical Writing	
BUS 231	Professional Communications	
ELE 105	Beg Residential Electrical	3
ELE 110	Electrical Code Studies I (Spring only)	3
Construction Technology Electives		6
Credits		15-16
Year 2		
Fall		
Select one of the following:		4
ENV 103	Earth Science	
ENV 117	Meteorology & Climatology	
PHY 121	General Physics I	
MTH 121	College Algebra	4
ELE 111	Electrical Code Studies II	3
ELE 121	Adv Residential Electrical	3
ELE 131	Commercial Electrical (Fall only)	3
Credits		17
Spring		
ELE 125	Pre-Commercial Electrical (Spring only)	3
ELE 135	Adv Commercial Electrical (Spring only)	3
ELE 142	Industrial Electrical	3
ELE 146	Adv. Industrial Electrical	3
EGY 141	Solar Photovoltaic Tech I	3
Credits		15
Total Credits		60-61

The responsibility for determining the transferability of this degree and courses to another institution is the sole responsibility of the student.