

# CONSTRUCTION TECHNOLOGY - RENEWABLE ENERGY TECHNOLOGY - ELECTRICAL, CERTIFICATE OF ACHIEVEMENT (LEVEL II)

## NMC Code 065

This certificate is designed for someone with introductory interest or for someone who is currently working in the electrical field and wants to enhance their job prospects. With a very narrow focus on the fundamentals of renewable energy, the specific applications as related to producing electricity, and a few electrical courses, the individual who completes this certificate will greatly enhance their job market skills. Information: (231) 995-2777.

## Requirements Certificate Requirements

Course	Title	Credits
CAR 100	Introductory Craft Skills	2
EGY 105	Sustainable Building Design	3
EGY 115	Residential Energy Efficiency	3
ELE 101	Introduction to Electrical	3
ELE 105	Beg Residential Electrical	3
ELE 121	Adv Residential Electrical	3
ELE 131	Commercial Electrical	3
MTH 111	Intermediate Algebra	3-4
or MTH 120	Mathematical Explorations	
Approved Construction Technology Elective		3
<b>Total Credits</b>		<b>26-27</b>

**Note:** ELE 110 Electrical Code Studies I and ELE 111 Electrical Code Studies II are additional courses offered for those seeking National Electrical Code references to daily work or those who would like structured study preparation for the Journeymen or Master Electrician License Exam.

## Approved Electives

Course	Title	Credits
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 <sup>1</sup>	3
CMT 107	Construction Supervision	4
CMT 207	Construction Cost Estimating <sup>1</sup>	3
EET 103	Electrical Studies I <sup>1</sup>	3
EET 204	Electrical Studies II <sup>1</sup>	3
EET 221	Industrial Controls <sup>1</sup>	3
EET 232	Programmable Logic Controllers <sup>1</sup>	3
EET 233	PLC Applications I <sup>1</sup>	3

EET 234	PLC Applications II <sup>1</sup>	3
EGY 105	Sustainable Building Design	3
EGY 115	Residential Energy Efficiency	3
EGY 145	Geothermal Technology <sup>1</sup>	3
ELE 101	Introduction to Electrical	3
ELE 105	Beg Residential Electrical <sup>1</sup>	3
ELE 110	Electrical Code Studies I <sup>1</sup>	3
ELE 111	Electrical Code Studies II <sup>1</sup>	3
ELE 121	Adv Residential Electrical <sup>1</sup>	3
ELE 125	Pre-Commercial Electrical <sup>1</sup>	3
ELE 131	Commercial Electrical <sup>1</sup>	3
ELE 135	Adv Commercial Electrical <sup>1</sup>	3
ELE 142	Industrial Electrical <sup>1</sup>	3
ELE 146	Adv. Industrial Electrical <sup>1</sup>	3
HVA 101	Introduction to HVAC/R	3
HVA 106	Fundamentals of Heating <sup>1</sup>	3
HVA 122	Refrigeration Fundamentals <sup>1</sup>	3
HVA 126	Residential and Commercial A/C <sup>1</sup>	3
HVA 132	Commercial A/C & Refrigeration <sup>1</sup>	3
HVA 136	EPA Certification <sup>1</sup>	3
PLU 101	Introduction to Plumbing	3
PLU 105	Plumbing Components <sup>1</sup>	3
PLU 121	Commercial Plumbing <sup>1</sup>	3
PLU 125	Plumbing Installation <sup>1</sup>	3
UAS 141	Remote Pilot Flight	3
SVR 111	Intro to Field Surveying	2
SVR 112	Intro to Surveying Data Use	3
UAS 211	Commercial Drone Operations <sup>1</sup>	3
UAS 241	Advanced Drone Operations <sup>1</sup>	3

<sup>1</sup>

Denotes courses with required prerequisites.

## Course Sequence Guide

Course	Title	Credits
<b>Year 1</b>		
<b>Fall</b>		
MTH 111 or MTH 120	Intermediate Algebra or Mathematical Explorations	3-4
CAR 100	Introductory Craft Skills	2
ELE 101	Introduction to Electrical	3
ELE 105	Beg Residential Electrical	3
<b>Credits</b>		<b>11-12</b>
<b>Spring</b>		
ELE 121	Adv Residential Electrical	3
ELE 131	Commercial Electrical	3
Approved Construction Technology Elective		3
<b>Credits</b>		<b>9</b>
<b>Year 2</b>		
<b>Fall</b>		
Approved Construction Technology Elective		3
EGY 105	Sustainable Building Design (Fall only)	3

EGY 115	Residential Energy Efficiency	3
<b>Credits</b>		<b>9</b>
<b>Total Credits</b>		<b>29-30</b>

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