

# 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
EGY 101	Principles of Renewable Energy	3
EGY 105	Sustainable Building Design	3
EGY 115	Residential Energy Efficiency	3
EGY 141	Solar Photovoltaic Tech I	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	4
Construction Technology Elective (see list)		2
<b>Total Credits</b>		<b>30</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
AVF 141	Remote Pilot Flight	3
AVF 211	Commercial Drone Operations <sup>1</sup>	4
AVF 241	Advanced Drone Operations <sup>1</sup>	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 <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 101	Principles of Renewable Energy <sup>1</sup>	3
EGY 105	Sustainable Building Design	3
EGY 115	Residential Energy Efficiency	3
EGY 141	Solar Photovoltaic Tech I <sup>1</sup>	3
EGY 143	Solar Thermal Technology I <sup>1</sup>	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

<sup>1</sup> Denotes courses with required prerequisites.

## Course Sequence Guide

Course	Title	Credits
<b>Year 1</b>		
<b>Fall</b>		
MTH 111	Intermediate Algebra	4
ELE 101	Introduction to Electrical	3
EGY 115	Residential Energy Efficiency (Fall only)	3
<b>Credits</b>		<b>10</b>
<b>Spring</b>		
ELE 105	Beg Residential Electrical	3
Construction Technology Electives		2
<b>Credits</b>		<b>5</b>
<b>Year 2</b>		
<b>Fall</b>		
ELE 121	Adv Residential Electrical	3
ELE 131	Commercial Electrical (Fall only)	3
EGY 101	Principles of Renewable Energy (Fall only)	3
EGY 105	Sustainable Building Design (Fall only)	3

EGY 141	Solar Photovoltaic Tech I (Fall only)	3
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>30</b>

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