# Electrical Systems Technology
# Associates Degree
# Diploma & Certificate

## ADMISSION

### Program Outcomes

The Electrical Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial and industrial facilities. Graduates qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical systems.

This program delivers a hands-on approach to:

- Circuit Analysis
- Commercial Wiring
- Industrial Wiring
- National Electric Code
- Hydraulics
- Industrial Motors and Controls

### Occupational Outlook

According to the U.S. Department of Labor's Occupational Outlook Handbook, "employment is projected for electrical and electronics installers and repairers of commercial and industrial equipment. This equipment will become more sophisticated and will be used more frequently as businesses strive to lower costs by increasing and improving automation. Companies will install electronic controls, robots, sensors, and other equipment to automate processes such as assembly and testing."

To learn more about employment outlook and work environment in the Electrical Technology field, go to: https://www.bls.gov/ooh/installation-maintenance-and-repair/electrical-and- electronics-installers-and-repairers.htm

## Admission Steps

- ☐ Complete CCC&TI admissions application online at cccti.edu
- ☐ Submit official high school/GED/AHS transcripts and college transcripts
- ☐ Complete FASFA online at www.studentaid.gov
- ☐ Meet placement testing requirements
- ☐ Meet with advisor to register for classes
- ☐ Pay for classes and purchase books bundle bookstore

## Important Contact Information

### Admissions

Contact Sara Greene, Admissions Specialist, at 828.726.2706 or sgreene@cccti.edu for more information and how to complete the enrollment and registration process.

### Financial Aid

Contact Financial Aid at 828.726.2713 as soon as possible to inquire and complete your FAFSA. Check your CCC&TI student email frequently to monitor your Financial Aid status.

### Program Director

Contact Justin Harris, Director, Energy & Construction Trades, at 828.726.2611 or jharris@cccti.edu

### Accreditation

Caldwell Community College and Technical Institute (CCC&TI) is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate degrees. CCC&TI may also offer credentials, such as certificates and diplomas, at approved degree levels. Questions about the accreditation of CCC&TI may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-409 7, by calling (404) 679 -4500, or by using information available on SACSCOC's website, www.sacscoc.org.

# PROGRAM OFFERINGS – Electrical Systems Technology Associate Degree Program (A35130)

**Fall Semester I**

| | | | | | | |
|---|---|---|---|---|---|---|
| ACA | 122 | Transfer and Career Success | F/S/SS | | | 1 Credit |
| BPR | 111 | Print Reading | Fall Only | | | 2 Credits |
| ELC | 113 | Residential Wiring | Fall Only | | | 4 Credits |
| ELC | 118 | National Electrical Code | Fall Only | | | 2 Credits |
| ELC | 131 | Circuit Analysis I | Fall Only | | | 4 Credits |
| ELC | 131A | Circuit Analysis I Lab | Fall Only | | | 1 Credit |
| ISC | 112 | Industrial Safety | Fall Only | | | 2 Credits |

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|---|---|---|---|---|---|---|
| | | | | | Total | 16 Credits |
| | | | **Spring Semester I** | | | |
| CIS | 110 | Introduction to Computers | F/S/SS | | | 3 Credits |
| ELC | 114 | Commercial Wiring | Spring Only | Prerequisite: ELC 113 | | 4 Credits |
| ELC | 121 | Electrical Estimating | Spring Only | | | 2 Credits |
| ELC | 128 | Introduction to Programmable Logic Controller | Spring Only | | | 3 Credits |
| MAT | 121 | Algebra/Trigonometry I | Spring Only | | | 3 Credits |
| | | | | | Total | 15 Credits |
| | | | **Summer Semester I** | | | |
| COM | 120 | Intro to Interpersonal Communication | F/S/SS | | | 3 Credits |
| ELN | 231 | Industrial Controls | F/S/SS | Prerequisite: ELC 131 | | 3 Credits |
| | | | | | Total | 6 Credits |
| | | | | | | |
| | | | **Fall Semester II** | | | |
| ELC | 228 | PLC Applications | Fall Only | | | 4 Credits |
| ENG | 111 | Writing and Inquiry | F/S/SS | Prerequisite: DRE-098 or ENG-002 | | 3 Credits |
| HYD | 110 | Hydraulics/Pneumatics I | Fall Only | | | 3 Credits |
| Student Choice | | Social Science Elective | F/S/SS | | | 3 Credits |
| | | | | | Total | 13 Credits |
| | | | **Spring Semester I** | | | |
| ELN | 131 | Analog Electronics I | Spring Only | Prerequisite: ELC 131 | | 4 Credits |
| ELN | 133 | Digital Electronics | Spring Only | | | 4 Credits |
| MNT | 160 | Industrial Fabrication | Spring Only | | | 2 Credits |

| | | | | | | |
|---|---|---|---|---|---|---|
| WBL | 110 | World of Work | | | | 1 Credit |
| | | | OR | | | |
| WBL | 111 | Work-Based Learning I | F/S/SS | | | 1 Credit |
| | | | | | Total | 11 Credits |
| **Total Credit Hours: 64** | | | | | | |

# PROGRAM OFFERINGS – Electrical Systems Technology Diploma Program (D35130)

**Fall Semester I**

| | | | | | | |
|---|---|---|---|---|---|---|
| BPR | 111 | Print Reading | Fall Only | | | 2 Credits |
| ELC | 113 | Residential Wiring | Fall Only | | | 4 Credits |
| ELC | 118 | National Electrical Code | Fall Only | | | 2 Credits |
| ELC | 131 | Circuit Analysis I | Fall Only | | | 4 Credits |
| ELC | 131 A | Circuit Analysis I Lab | Fall Only | | | 1 Credit |
| ISC | 112 | Industrial Safety | Fall Only | | | 2 Credits |
| | | | | | Total | 15 Credits |

**Spring Semester I**

| | | | | | | |
|---|---|---|---|---|---|---|
| CIS | 110 | Introduction to Computers | F/S/SS | | | 3 Credits |
| ELC | 114 | Commercial Wiring | Spring Only | Prerequisite: ELC 113 | | 4 Credits |
| ELC | 121 | Electrical Estimating | Spring Only | | | 2 Credits |
| ELC | 128 | Introduction to Programmable Logic Controller | Spring Only | | | 3 Credits |

| | | | | | | |
|---|---|---|---|---|---|---|
| MAT | 121 | Algebra/Trigonometry I | Spring Only | | | 3 Credits |
| | | | | | Total | 15 Credits |
| **Summer Semester I** | | | | | | |
| COM | 120 | Intro to Interpersonal Communication | F/S/SS | | | 3 Credits |
| ELN | 231 | Industrial Controls | F/S/SS | Prerequisite : ELC 131 | | 3 Credits |
| Student Choice | | Social Science Elective | F/S/SS | | | 3 Credits |
| | | | | | Total | 6 Credits |
| **Total Credit Hours: 39** | | | | | | |

# PROGRAM OFFERINGS – Electrical Systems Technology Certificate Program (C35130)

| **Fall Semester I** | | | | | | |
|---|---|---|---|---|---|---|
| ELC | 113 | Residential Wiring | Fall Only | | | 4 Credits |
| ELC | 131 | Circuit Analysis I | Fall Only | | | 4 Credits |
| ELC | 131 A | Circuit Analysis I Lab | Fall Only | | | 1 Credit |
| | | | | | Total | 9 Credits |
| **Spring Semester I** | | | | | | |
| ELC | 114 | Commercial Wiring | Spring Only | | Prerequisite: ELC 113 | 4 Credits |
| ELC | 121 | Electrical Estimating | Spring Only | | | 2 Credits |
| ELC | 128 | Introduction to Programmable Logic Controller | Spring Only | | | 3 Credits |
| | | | | | Total | 9 Credits |
| **Total Credit Hours: 18** | | | | | | |

# COST

| | Associate | Diploma | Certificates |
|---|---|---|---|
| **Tuition ($76/credit hour)** | **This program is designed to be completed in 2 years** | **This program is designed to be completed in 12 months** | **This program is designed to be competed in 6 – 12 months depending on certificate** |
| | **Fall Semester I $1,064** | **Fall Semester I $1,140** | ***Depending on certificate, price will very*** |
| | **Spring Semester I $1,140** | **Spring Semester I $1,140** | **$912 - $1,140** |
| | **Summer Semester I $684** | **Summer Semester I $684** | |
| | **Fall Semester II $1,140** | | |
| | **Spring Semester II $836** | | |
| | **Tuition Total $4,864** | **Tuition Total $2,964** | |
| **Additional Fees** | Click link to view student fees: https://cccti.edu/tuition-and-fees/ | | |
| **Textbooks (purchased from CCC&TI Bookstore)** | **varies** | **varies** | **varies** |
| **OSHA Card** | **$10.00** | **$10.00** | **N/A** |
| **Graduation Fee** | **$25** | **$25** | **$25** |

| | | | |
|---|---|---|---|
| **Total** | approximately **$5,478** | approximately **$2,818** | approximately **$984 – $1,212** |