

# Electric Utility Technology - Substation Track

## Degree Type

Associate of Applied Science

## Program Description

The Associate of Applied Science degree in Electric Utility Technology is offered in partnership with First Energy Corporation. This program focuses on the essential skills necessary to prepare graduates for employment as a substation worker, power line worker, or in related technical fields. Since this program is offered in partnership with a local major utility, it gives successful graduates an advantage for future employment in the electric utility industry. In addition to classroom and laboratory instruction, students participate in hands-on experiences at utility company training facilities applicable to the lineman or substation specialty. Enrollment is limited, with program eligibility screening conducted by First Energy and Pennsylvania Highlands Community College prior to the start of the fall semester. Please note that this is a daytime program and students are required to participate in a ten-to-fourteen-week compensated Summer Field Experience between June and September, following Spring 1.

## Career Opportunities

- Electrical Substation Worker
- Electrical Powerline Worker Relay Tester
- Dispatcher
- Electrical Distribution Management Positions

## Program Objectives

### Upon completion of the program, the student will be able to:

1. Demonstrate work practices that comply with OSHA and safety guidelines for the electric utility industry.
2. Demonstrate proficiency in the use of various hand tools used in the electrical utility industry.
3. Operate equipment used in the maintenance, testing, and repair of electrical equipment.
4. Demonstrate knowledge of basic business management and labor relations.
5. Demonstrate skills in collaborative communication with team members and in the writing of technical reports.

## Obtaining the Degree

### To earn the Associate of Applied Science degree, students must:

- Matriculate into the program.
- Satisfactorily complete all degree requirements, including General Education and Major Requirements.

### Required Equipment Needed by Student:

- Black Sharpie Pen
- Linesman Pliers
- Diagonal Pliers

- Long Nose Pliers
- Utility Knife
- Multi-meter Cat II
- Screwdriver Set (Electrical, Flat 38 Phillips, #1, #2, #3)
- Tape Measure
- Wire Strippers
- Romex Cable Ripper
- Safety Glasses
- Substation Electrician Boots

**Supplementary Materials:**

- Cordless Drill/Driver ¾" (optional)

## General Education Requirements

Course Code	Title	Credits
ACP 100	Academic and Career Planning	1
CIT 100	Microcomputer Applications	3
COM 110	Interpersonal Communication	3
PHI 100	Critical Thinking	3
ENG 110	English Composition I**	3
LIF 111	Health and Wellness	3
MAT 117	Technical Math for Trades	3
PHY 102	Concepts of Physics	3
PHY 103	Concepts of Physics Lab	1

## Major Requirements

Course Code	Title	Credits
BUS 110	Introduction to Business	3
BUS 240	Labor Management Relations	3
ELT 105	AC/DC High Voltage	4
ENG 225	Technical Writing	3
EUT 100	Electric Utility Technology Substation I	6
EUT 110	Electric Utility Technology Substation II	6
EUT 200	Electric Utility Technology Substation III	6
EUT 210	Electric Utility Technology Substation IV	6
BUS 130	Personal Consumer Finance	3
<b>Total Credits</b>		<b>63</b>

**Course Sequencing**

## Fall 1

<b>Course Code</b>	<b>Title</b>	<b>Credits</b>
ACP 100	Academic and Career Planning	1
ENG 110	English Composition I**	3
ELT 105	AC/DC High Voltage	4
EUT 100	Electric Utility Technology Substation I	6
MAT 117	Technical Math for Trades	3

## Spring 1

<b>Course Code</b>	<b>Title</b>	<b>Credits</b>
ENG 225	Technical Writing	3
BUS 110	Introduction to Business	3
CIT 100	Microcomputer Applications	3
EUT 110	Electric Utility Technology Substation II	6

## Summer Session

Students are required to participate in, and pass, a Summer Field Experience. No course numbers or credits are attached to this requirement.

## Fall 2

<b>Course Code</b>	<b>Title</b>	<b>Credits</b>
PHY 102	Concepts of Physics	3
PHY 103	Concepts of Physics Lab	1
BUS 130	Personal Consumer Finance	3
COM 110	Interpersonal Communication	3
EUT 200	Electric Utility Technology Substation III	6

## Spring 2

<b>Course Code</b>	<b>Title</b>	<b>Credits</b>
LIF 111	Health and Wellness	3
EUT 210	Electric Utility Technology Substation IV	6
PHI 100	Critical Thinking	3
BUS 240	Labor Management Relations	3