

# ELECTRICAL TECHNOLOGY, Associate in Applied Science Degree - 4750

Engineering & Technology Department

The Electrical Technology AAS Degree prepares students with the knowledge and skills needed for employment and advancement in the electrical field. Emphasis is placed on residential and commercial construction and maintenance applications. Curriculum course-work covers basic electrical theory, residential and commercial wiring, safety, the National Electrical Code, and blueprint reading. Students gain hands-on experience through laboratory exercises in the operation of electrical systems through fusion-splicing, mock wiring of commercial and residential systems. The complete program is available at the Harrisburg (Mid-Town location) and York campuses. Students can attend full time or part time.

## Career Opportunities

Graduates find employment as general electricians, residential service technicians, commercial service technicians, electrical-equipment repair technicians, electrical system installers, maintenance technicians, work-team supervisors, electrical estimators, electrical system designers, and renewable energy technicians.

## Competency Profile

This curriculum is designed to prepare students to:

- Demonstrate a variety of technical skills in the electrical field
- Recognize and practice safe and healthy work procedures
- Perform basic electrical mathematical calculations
- Properly and safely handle electrical tools and materials
- Read and interpret blueprints necessary for specified installations
- Interpret the National Electric Code and use it in specific applications
- Demonstrate procedures used in residential, commercial, and industrial electrical construction
- Wire complex motor and control circuits
- Install, maintain, and repair automated electrical systems
- Solve complex problems of circuit design and analysis
- Troubleshoot equipment and demonstrate proper repair procedures

## PROGRAM REQUIREMENTS (TOTAL CREDITS = 60)

General Education		Major Requirements		Other Required Courses	
ENGL 110 Foundations of Professional Writing	3	ELOC 153 Fundamentals of Electricity	4	Program Electives**	13
COMM 101 Effective Speaking (or)	3	ELOC 157 Electrical Wiring I	4		
COMM 203 Interpersonal Communication	(3)	ELOC 163 Electrical Wiring II	4		
Humanities & Arts Elective	3	ELOC 169 Low Voltage Cabling	3		
Mathematics or Science Elective	3	ELOC 171 Electrical Service	2		
Social & Behavioral Sciences Elective*	3	ELOC 172 National Electrical Code	2		
First-Year Seminar Elective	1	ELOC 175 Electrical System Troubleshooting	3		
Wellness	<u>1</u>	GTEC 101 Safety: OSHA-30 & NFPA-70E	3		
	17	GTEC 105 Customer Service	1		
		IA 201 Motors and Controls	<u>4</u>		
			30		

\*Students select from the following: ANTH 101, 205; COMM 253; GEOG 201, 230; HIST 102; PSYC 229; SOCI 201, 202, 203 or 205.

\*\*Students select two courses from the following disciplines: ELOC, GTEC, HVAC, HBR, IA, WELD or INTN 291.

## RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part time students can complete this program by taking one or more courses each semester.

Fall Semester I	Spring Semester I	Fall Semester II	Spring Semester II
ELOC 153	4 ELOC 157	4 COMM 101or 203	3 ELOC 175
ELOC 172	2 ELOC 163	4 ELOC 171	2 IA 201
ENGL110	3 ELOC 169	3 Humanities/Arts Elective	3 Math/Science Elective
FYS Elective	1 Program Electives**	5 Program Electives**	8 Social/Behavioral Science Elective*
GTEC 101	3		Wellness
GTEC 105	1		1