

Electrical Engineering Technology

The Associate in Applied Science degree in Electrical Engineering Technology has been specifically designed to prepare individuals to become advanced technicians in the workforce.

Electrical Engineering Technicians (Associates degree holders) typically build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, instrumentation systems, communication systems, and power electronic systems.

A broad-based core of courses ensures that students develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the ability to think critically, analyze, and troubleshoot electronic systems. Beginning with electrical fundamentals, course work progressively introduces electronics, 2D Computer Aided Design (CAD), circuit simulation, solid-state fundamentals, digital concepts, instrumentation, C++ programming, microprocessors, programmable Logic Controllers (PLCs). Other course work includes the study of various fields associated with the electrical/electronic industry.

This degree program focuses on the knowledge and skills associated with the installation, maintenance, integration and troubleshooting of instrumentation and control systems. It is intended for workforce development to permit students to go directly into industry with this degree.

Graduates should qualify for employment as engineering assistants or as computer, electrical, or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, communications technician, electronic tester, electronic systems integrator, electrical and electronics repairers, electromechanical equipment assemblers, electrical drafter, electronics and instrumentation technician, control technician, bench technician, electric motor, power tool, and related repairers, or production control technician.

The AAS degree in Electrical Engineering Technology is accepted at some colleges and universities as the first two years of a bachelor's-level engineering technology program and graduates can transfer to a university program to finish a bachelor's degree; however, there will be deficiencies.

Information on the Electrical Engineering Technology program may be found on the Electrical Engineering Technology website.

For specific information about potential positions and wages in electrical engineering technology employment, visit the Central Piedmont Career Coach website.

Electrical Engineering Technology (A40180)

Degree Awarded

The Associate in Applied Science Degree - Electrical Engineering Technology is awarded by the College upon completion of the program.

Program Accreditation

The Electrical Engineering Technology program at Central Piedmont is accredited by the Engineering Technology Accreditation Commission (TAC) of the Accreditation Board of Engineering and Technology (ABET).

How to Apply:

Complete a Central Piedmont admissions application through Get Started on the Central Piedmont website.

Contact Information

For questions about the program or for assistance as a student in the program, contact faculty advising. The Electrical Engineering Technology program is in the Engineering Technology Division. For additional information, visit the Electrical Engineering Technology website or call the Program Chair at 704.330.6773.

General Education Requirements

ENG 111	Writing and Inquiry	3.0
Select one of the following:		3.0
ENG 112	Writing and Research in the Disciplines	
ENG 113	Literature-Based Research	
ENG 114	Professional Research & Reporting	
Select one of the following courses:		3.0
COM 110	Introduction to Communication	
COM 231	Public Speaking	
MAT 171	Precalculus Algebra	4.0
Select 3 credits of the following:		3.0
ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	
HUM 120	Cultural Studies	
DRA 111	Theatre Appreciation	
HUM 130	Myth in Human Culture	
MUS 110	Music Appreciation	
MUS 112	Introduction to Jazz	
PHI 215	Philosophical Issues	
PHI 240	Introduction to Ethics	
REL 110	World Religions	
Select 3 credits of the following:		3.0
ECO 251	Principles of Microeconomics	
ECO 252	Principles of Macroeconomics	
HIS 111	World Civilizations I	
HIS 112	World Civilizations II	
HIS 131	American History I	
HIS 132	American History II	
POL 120	American Government	
PSY 150	General Psychology	
SOC 210	Introduction to Sociology	

Major Requirements

ACA 122	College Transfer Success	1.0
ELN 133	Digital Electronics	4.0
ELC 231	Electric Power Systems	4.0
ELC 135	Electrical Machines	3.0
ELN 131	Analog Electronics I	4.0

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ELN 260	Prog Logic Controllers	4.0
ELN 150	Computer-Aided Drafting for Electronics	2.0
Select one of the following:		4.0
ELC 138 & ELC 139	DC Circuit Analysis and AC Circuit Analysis	
ELC 131	Circuit Analysis I	
ELC 133	Circuit Analysis II	4.0
PCI 170	DAQ and Control	4.0
or PCI 173	Programmable Systems	
CSC 134	C++ Programming	3.0
ELN 232	Introduction to Microprocessors	4.0
Select 4 credits from the following:		4.0
PHY 151	College Physics I	
PHY 251	General Physics I	
MAT 172	Precalculus Trigonometry	4.0
Select 2 credits from the following courses:		2.0
WBL 112	Work-Based Learning I	
ISC 112	Industrial Safety	
Total Credits		70

No diplomas are offered in Electrical Engineering Technology.

Electrical Engineering Technology Certificates (C40180)

Electrical Engineering Technology Certificate Specialization in Automation Control (C40180-C6)

Major Requirements

ELN 260	Prog Logic Controllers	4.0
ELC 135	Electrical Machines	3.0
ELC 136	Electrical Machines II	4.0
PCI 173	Programmable Systems	4.0
Total Credits		15

The following is the suggested plan for when to take each course to complete the Associate in Applied Science degree, based on the program requirements of the 2022-2023 catalog. This is only a recommendation — you may take courses in another order upon consultation with your advisor. This plan is based on you starting with college-level math and English courses, starting your program in the fall, and attending full-time. You can also follow this sequence if you attend part-time. Speak with an advisor about the plan and any questions. This program might also offer diplomas or certificates; visit the catalog or contact the program for details.

Electrical Engineering Technology suggested course sequence