CENTRAL PIEDMONT COMMUNITY COLLEGE • ENGINEERING TECHNOLOGIES

Associate in Applied Science

Electrical Engineering Technology

(A40180)

Overview

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. This program has specifically been designed to ease the transition for students planning to join UNC Charlotte's BSET program, but can be also applied to many other universities. Beginning with electrical fundamentals, course work progressively introduces electronics, circuit simulation, solid-state fundamentals, digital concepts, instrumentation, C++ programming, microprocessors, electrical power systems, LabVIEW programming, programmable Logic Controllers (PLCs). Other course work includes the study of various fields associated with the electrical/electronic industry. This degree focuses on the knowledge and skills associated with the installation, maintenance, integration and trouble-shooting of automated systems. Coursework includes control equipment such as PLCs, PACs, networking, electrical machines such as transformers, generators, AC, DC, stepper and servo motors, variable frequency drives, and data acquisition using LabVIEW.

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 is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Apply at www.cpcc.edu/getstarted

Engineering Technologies
Change your direction!

Program Inquiries:
Dr. Adam Harris, Program Chair
Adam.harris@cpcc.edu, 704.330.6215
Dave Ross, Instructor
Dave.ross@cpcc.edu, 704.330.6773
http://www.cpcc.edu/et/academic-programs

CENTRAL PIEDMONT COMMUNITY COLLEGE

		Lecture	Lab	Credit
Fall Semester				
COM 110	Intro. To Communications	3	0	3
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry I	2	2	3
or UNCC Transfer				
MAT 171	Pre-Calculus Algebra	3	0	3
ELC 131	Circuit Analysis I	3	3	4
ELN 133	Digital Electronics	3	3	4
				17
Spring Semester				
MAT 122	Algebra/Trigonometry II	2	2	3
or UNCC Transfer				
MAT 172	Pre-Calculus Trigonometry II	2	3	3
ELC 213	Instrumentation	3	2	4
ELC 133	Circuit Analysis II	3	3	4
ELN 131	Analog Electronics	3	3	4
				15
Summer Session				
ENG 114	Professional Research	3	0	3
Behavioral Science		3	0	3
Humanities/Fine Arts		3	0	3
				9
Fall Semester				
MAT 223	Applied Calculus	2	2	3
or UNCC Transfer				
MAT 271	Calculus I	3	2	4
ELC 135	Electrical Machines I	2	2	3
CSC 134	C++Programming	2	3	3
ELN 260	Programmable Logic Controllers	3	3	4
				13/14
Spring Semester				
PHY 151	Physics-Mechanics	3	2	4
ELN 232	Intro to Microprocessors	3	3	4
ELC 231	Electrical Power System	3	2	4
PCI 170	DAQ & Control (Lab View)	3	3	4
				16

Total Degree Credits	**70**
Total Transfer Credits	**71**

** Denotes preferred University transfer option NCCCS must be between 64 and 76 hours UNCC only accepts 64 credits hours total

Rev. 02/2017 AJF

Please contact your advisor before scheduling classes for the Electrical Engineering Technology Program

This program is intended for university transfer, however, it can still be used to gain employment after graduation. Graduates may also seek employment as technicians, engineering assistants, field service engineers, technical managers, or salespersons in electrical generation/distribution, industrial maintenance, automation, electronic repair or other fields requiring a broad-based knowledge of electrical and electronic concepts.

CENTRAL PIEDMONT COMMUNITY COLLEGE

(A40180) Electrical Engineering Technology Curriculum Flowchart

Fall 1	Spring 1	Summer 1	Fall 2	Spring 2
17 Credit Hours	15 Credit Hours	9 Credit Hours	13/14 Credit Hours	16 Credit Hours
COM 110 Introduction to Communication [3 contact, 3 credit]	MAT 122 Algebra / Trigonometry II Or MAT 172 Precalc/Trig II [4 contact, 3 credit]	ENG 114 Professional Research and Reporting [3 contact, 3 credit]	MAT-223 Applied Calculus [4 contact, 3 credit] Or MAT-271 Calculus I [5 contact, 4 credit]	PHY 151 Physics – Mechanics [5 contact, 4 credit]
ENG 111 Expository Writing [3 contact, 3 credit]	ELC 213 Instrumentation [6 contact, 4 credit]	Behavioral science [3 contact, 3 credit]	ELC 135 Electrical Machines I [4 contact, 3 credit]	ELN 232 Intro to Microprocessors [6 contact, 4 credit]
MAT 121 Algebra / Trigonometry I Or MAT 171 Precalc/Trig I [4 contact, 3 credit]	ELC 133 Circuit Analysis II [6 contact, 4 credit]	Humanities/Fine Arts [3 contact, 3 credit]	CSC 134 C++ Programming [5 contact, 3 credit]	ELC 231 Electrical Power Systems [5 contact, 4 credit]
ELC 131 Circuit Analysis I [6 contact, 4 credit]	ELN 131 Analog I [6 contact, 4 credit]		ELN 260 Programmable Logic Controllers [6 contact, 4 credit]	PCI 170 DAQ and Controls (LabVIEW) [6 contact, 4 credit]
ELN 133 Digital Logic [6 contact, 4 credit]				

Curriculum Total Credit Hours	70/71

Color Key
Communications
Mathematics
Physical & Natural Sciences
Social Sciences & Humanities
Technical Content

* Must make a C or above to advance

MUST Take this Course	BEFORE Taking this Course
*ELC 131	ELC 133
*ELC 131	ELC 135
*ELC 131	ELN 131
*ELC 213	ELN 260
*ELN 131	ELN 132
*ELN 133	ELN 232

MUST Take this Course	BEFORE Taking this Course
*ENG 111	ENG 114
*MAT 121	MAT 122
*MAT 171	MAT 172
*MAT 122	MAT-233
*MAT 172	MAT 271
*MAT 171	PHY 131

Revised 09/2016 ACH

CENTRAL PIEDMONT COMMUNITY COLLEGE
ENGINEERING TECHNOLOGIES DIVISION
P. O. BOX 35009
CHARLOTTE, NC 28235-5009