APPLIED ENGINEERING & TECHNOLOGIES

ELECTRONICS ENGINEERING TECHNOLOGY

Electronics Engineering Technology Degree - A40200

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/ computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Basic Electronics Certificate - C40200A

The Basic Electronics certificate provides the student with a program of study necessary for developing basic electronic skills. The student will gain an understanding of AC/DC basic circuits, digital circuits, and basic electronic devices. Courses are an adjunct of the Electronics Engineering Technology program and may be transferred directly toward completion of the A.A.S. degree in Electronics Engineering Technology.

PLC Programming Certificate - C40200B

The PLC Programming Certificate provides the student with the basic technical skills and knowledge necessary to work with the Programmable Logic Controllers typically found in an industrial environment. The program investigates the operation and programming of PLCs and the interfacing of PLCs to electronic devices and sensors routinely found in industrial controls. Students entering the program are expected to have a basic knowledge of AC and DC electrical circuits.

SCADA Systems Certificate - C40200E

Instrumentation Certificate - C40200F

Embedded Systems Certificate – C40200G

Program Sequence

First Semester

EGR	131	Intro to Electronics Technology	2
ELC	131	Circuit Analysis I	4
ELN	133	Digital Electronics	4
ENG	111	Expository Writing	3
MAT	121	Algebra and Trigonometry*	3

Second Semester

ELN	131	Analog Electronics I	4
ELN	260	Prog Logic Controllers	4
ELN	275	Troubleshooting	2
HUM	110	Technology and Society	3
PSY	118	Interpersonal Psychology	3

Complete Basic Electronics Certificate (C40200A): EGR 131, ELC 131, ELN 131, ELN 133, ELN 275

Third Semester

ELN	132	Analog Electronics II	4
ELN	231	Industrial Controls	3

Fourth Semester

CSC	133	C Programming	3
ELN	232	Introduction to Microprocessors	4
ELN	234	Communication Systems	4
Elective List I			3

Fifth Semester

ELN	152	Fabrication Techniques	2
ELN	233	Microprocessor Systems	4
ELN	235	Data Communications Systems	4
ENG	114	Professional Research and Reporting	3
Elective List I			3

Complete PLC Programming Certificate (C40200B): Choose ATR 214, ATR 215 + ELN 231, ELN 260

Complete SCADA Systems Certificate (C40200E): Choose ATR 214, PCI 170, PCI 172 + ELN 260

Complete Instrumentation Certificate (C40200F): Choose ATR 215, PCI 172, PCI 262 + ELN 260

Complete Embedded Systems Certificate (C40200G): CSC 133, ELN 133, ELN 152, ELN 233

Elective List I (Select 3 hours from the following courses):

ATR	214	Advanced PLCs	4
ATR	215	Sensors and Transducers	3
ELN	236	Fiber Optics and Lasers	4
PCI	170	DAQ and Control	4
PCI	172	SCADA Systems	4
PCI	262	Intro to Process Control	4
WBL	111	Work-Based Learning I	1

Graduation Requirements ..... 69 Credit Hours