Electronic Systems Technology to Bachelor of Science, Electronics Engineering Technology, Electronics Engineering Technology

Program Overview

If you are the type of person who likes working with your hands, putting things together, and combining different systems to come up with a solution for a real life problem, then a career in Electronics Engineering could be the right choice for you. Learn to analyze and troubleshoot electronic and telecommunication systems. Take a look around you. You are surrounded by these systems; from traditional electronic products to wireless PDAs, iPods, iPhones, iPads, and others.

In these times of emerging technologies, a skilled workforce in the electronics field has been and will continue to be in demand in maintenance and repair, installation, quality assurance, and research and development.

Program Outcomes

Students in the B.S. Electronics Engineering Technology program learn to design and build electronic systems and learn about analog and digital electronics. They are able to apply the engineering and mathematical principles that they learn in order to implement and maintain electronic systems, such as computers and controllers.

Upon completion of the Bachelor of Science in Electronics Engineering Technology, graduates are able to:

- Apply basic knowledge of mathematics, science, and engineering - with applicability to jobs in electronic related industries and problem solving.
- Analyze the operation of electrical and electronic devices and instruments - with applicability to jobs in electronic related industries and problem solving and evaluation.
- Create technical documentation for technical reports and presentations - with applicability to jobs in electronic related industries and problem solving and integration and teamwork.
- Interpret experimental results to solve technical problems and improve processes - with applicability to problem solving and integration.
- Integrate various systems containing hardware and software components - with applicability to jobs in electronic related industries and problem solving and integration and evaluation.
- Evaluate proper utilization of appropriate tools to acquire data and improve a system or process - with applicability to jobs in electronic related industries and problem solving.
- Collaborate effectively with diverse team members to achieve a designated task - with applicability to teamwork.
- Communicate ideas effectively and clearly in oral and written formats - with applicability to teamwork.

- Evaluate professional and ethical responsibilities of an engineering technologist - with applicability to ethics
- Gather information appropriately to validate technical arguments - with applicability to jobs in electronic related industries and problem solving.

In 2.5 years, through our year-round schedule, you can earn a Bachelor of Science in Electronics Engineering Technology.

Concentration Outcomes
Graduates of this degree program are able to design, install, maintain, and repair electrical and electronic equipment.

Degree Requirement	Required Semester Credits	CCAF Transfer Credits	Courses to take at Institution
Core Courses	**32**	**16**	**16**
CIS121 Logic and Design	3		3
CIS126 Programming I	3		3
CIS150 Networking I	3		3
CIS151 Networking II	3		3
EET110 Electric Circuits I	3	3(ELT1702)	
EET111 Electric Circuits II	3	3(ELT1701)	
EET111L Electric Circuits II Lab	1	1(ELT5728)	
EET120 Semiconductor Devices	3	3(ELT1712)	
EET121 Electronic Systems Applications	3	3(ELT1714)	
EET130 Digital Systems I	3	3(ELT1106)	
EET230 Digital Systems II	3		3
EET230L Digital Systems II Lab	1		1
Required Concentration Courses	**39**	**16**	**23**
CIS106 Introduction to Operating Systems	3		3
IST120 Computer Applications	3		3
EET221L Instrumentation & Measurement Lab	1	1(ELT1716)	
EET220 Industrial Application	3	3(ELT5714)	
EET250 Computer Configuration I	3		3
EET251 Computer Configuration II	3		3
EET251L Computer Configuration II Lab	1		1
EET252 Data Communications & Networking	3		3
EET280 Introduction to Communication Sys.	3	3(ELT1108)	
EET282 Wireless Security	3		3
EET301 Special Topics in Engineering Tech.	3	3(ELT1457)	
EET310 Circuit Analysis	3	3(ELT1453)	
EET380 Digital Communication I	3	3(ELT1456)	
EET430 Microcontrollers	3		3
EET430L Microcontrollers	1		1
General Education	**31**	**15**	**16**
COM110 Principles of Speech	3	3	
ENG110 English Composition	3	3	
ENG120 Advanced Composition	3		3

MTH131 College Algebra (Required)	3	3	
MTH200 Pre-Calculus	3		3
PHY120 Physics	3		3
PHY120L Physics LAB	1		1
PSY105 Introduction to Psychology	3	3	
PSY220 Positive Psychology ECO201 Macroeconomics ECO202 Microeconomics SOC100 Introduction to Sociology	3		3
HUM205 Culture and Diversity	3	3	
CAP480 Arts & Sciences Capstone	3		3
COR090 Career Orientation	0		0
*****Technical Elective Courses**	**22**	**17**	**5**
EET100 Intro to Engineering Tech	3		3
EET272 Fiber Optic Communications	3		3
EET272L Fiber Optic Communications Lab	1		1
EET300 Engineering Technology Project Management	3		3
EET302 Senior Internship	3		3
EET33l Programmable Controllers & Robotics	3		3
EET331L Programmable Controllers & Robotics LAB	1		1
EET CCAF Technical Elective 1	3	3	
EET CCAF Technical Elective 2	3	3	
EET CCAF Technical Elective 3	3	3	
EET CCAF Technical Elective 4	3	3	
EET CCAF Technical Elective 5	3	3	
EET CCAF Technical Elective 6	1	1	
EET CCAF Technical Elective 7	1	1	
Total Credits Required Bachelor of Science Degree	**124**	**64**	**60**

***ECPI is a Category II partner. Programs are designed primarily for Airmen who are currently enrolled in a CCAF AAS degree program. Partnering institutions will identify prerequisite coursework (no more than 3 courses/9 semester hours) the CCAF student needs to complete as part of their CCAF General Education and Program Elective requirements to include MTH131 College Algebra.**

**** Total hours required to complete B.S. degree is 124. This document is to provide students a snapshot of the degree program requirements for BS_EET_EET and course areas where credits may be awarded. Minimum credits 64, Maximum credits 80. An individualized degree plan showing courses required based on credits transferred in will be provided as part of the degree contract/enrollment process.**

***** The Technical Elective requirement is 22 credits. Students can satisfy the credit requirement by transferring 17 EET CCAF Technical Elective credits and taking 5 credit hours at ECPI.** ***ELT1451 will be accepted as transfer credit for EET272.***

ECPI <u>will not accept</u> the following course for Technical Elective Transfer Credits:
ELT1107, ELT1109, ELT1219, ELT1223, ELT1262, ELT1437, ELT1501, ELT1529, ELT1544, ELT2129, ELT2136, ELT2138, ELT2140, ELT6723, ELT7737, and ELT7750

******In addition to courses listed under Technical Electives, course scheduled may consist of other courses in this concentration or other concentrations.**

ECPI will accept credit toward a degree or certificate for satisfactory performance on the Advanced Placement of the College Board (AP), College-Level Examination Program (CLEP), and Defense Activity for Non-Traditional Support (DANTES) exams. Prospective students should contact the college for a list of exams that apply to CLEP and DANTES. A minimum score of 50 is required to receive transfer credit.