APPLIED ELECTRONICS & COMPUTER TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE

The Applied Electronics and Computer Technology program at KVCC prepares students with the technical knowledge and professional skills needed for careers in the installation, maintenance, technical support, and troubleshooting of electronic equipment, wired and wireless communication systems, computers, and computer network systems. The primary goal of the program is to ensure each student is well equipped to enter the workforce as a technical support professional.

The AECT program integrates theory and applications through a lab intensive, project-based curriculum which emphaizes critical thinking, troubleshooting, and problem-solving techniques. The program is well-equipped, employing the latest in electronic test and measure equipment, computers, network servers, and computer network systems.

Upon successful completion of the AECT program, students can directly enter the workforce, or transfer into a bachelor's degree in electrical or computer engineering, computer science, computer information systems, or computer network security.

"Enrolling in the Applied Electronics and Computer Technology program at KVCC was an incredible experience for me. The instructors taught me to use high-tech electronic equipment and computers in real-world scenarios."

Learn to install, maintain, and troubleshoot electronics and computer- based equipment

What Applied Electronics and Computer Technology graduates do:

- Provide technical support for computer desktop and computer network systems.
- Provide technical support for computer system end users.
- Provide technical support for network servers and associated infrastructure.
- Provide technical support for software applications.
- Provide technical support for wired and wireless communication systems.
- Install, certify, and troubleshoot copper and fiber-optic network cabling.
- Troubleshoot and repair electronic components and systems.
- Maintain, troubleshoot, and calibrate bio-medical electronic equipment.
- Work with electrical and computer engineers.
- Transfer to a baccalaureate degree program in engineering or computer information systems.

Career Opportunities:

- Computer support technician
- Information systems support
- Network support technician
- Cable-Fiber installation technician
- Security systems support
- Electronics technician
- Field service support technician
- Bio-medical electronics technician
- Communication system technician
- Cellular telephone system technician
- Cable television network technician
- Marine electronics technician
- Engineering technician

For further questions about this program, please contact: kvccadmissions@mainecc.edu

APPLIED ELECTRONICS AND COMPUTER TECHNOLOGY

Associate of Applied Science Degree

First Semester

ETC101*	Managing Desktop Applications.	1
ETC112*	Information Technology Fundamentals	3
ETC113*	Electrical Circuits I	3
MAT114	Technical Math	3
ENG 108	Technical Writing	3
ECO132	Personal Finance and Investing (GE)	3

Second Semester

ETC110*	Computer Technology Support	3
ETC114*	Electrical Circuits II	3
ETC119*	Digital Systems with C Programming	3
ETC125*	Semiconductor Devices	3
MAT214	Technical Math II	3

Third Semester

ETC220*	Microcontrollers W/C Programming	3
ETC225*	Analog Circuits	3
ETC240*	Electronic Communication Systems	3
ETC241*	Computer Network Systems	3
ETC250*	Computer Technology Support II	3
COM105	Interpersonal Communications	3

Fourth Semester

ETC212*	Linux with Python Programming.	3
ETC213*	Windows Server Operating System	3
ETC244*	Robotics Lab	2
ETC245*	Networking Applications Lab	1
PHI110	Intro to Contemporary Ethics (H)	3
ECO113	Principles of Macroeconomics (SS)	3

Total Credits **64**

Computer Technology Certificate

First Semester

ETC101*	Managing Desktop Applications	1
ETC112*	Information Technology Fundamentals	3
MAT114	Technical Math I	3

Second Semester

ETC110*	Computer Technology Support I.	3
ENG108	Technical Writing	3

Third Semester

ETC250*	Computer Technology Support II.	3
ETC212*	Linux with Python Programming.	3

Fourth Semester

ETC213*	Windows Server Operating System	3
ETC241*	Computer Network Systems	3
ETC245*	Networking Applications Lab	1

Total Credits **26**

CRITERIA FOR GRADUATION

Students must successfully complete the required 64 credits in the AECT or the AET program. Students must successfully complete the required 26 credits in the computer certificate program. A minimum grade of “C” (73%) is required for successful completion of all core courses (*). Students must attain a final GPA of 2.0 or higher.

APPLIED ELECTRONICS AND COMPUTER TECHNOLOGY
APPLIED ENGINEERING TECHNOLOGY

Associate of Applied Science Degree, Certificate

DESCRIPTION

The Applied Electronics and Computer Technology program at KVCC prepares students with the technical knowledge and professional skills needed for careers in the installation, maintenance, technical support, and troubleshooting of electronic equipment, wired and wireless communication systems, computers, and computer network systems. The primary goal of the program is to ensure each student is well equipped to enter the workforce as a technical support professional.

The AECT program integrates theory and applications through a lab-intensive, project-based curriculum which emphasizes critical thinking, troubleshooting, and problem-solving techniques. The program is well-equipped, employing the latest in electronic test and measure equipment, computers, network servers, and computer network systems.

Upon successful completion of the AECT program, students can directly enter the workforce, or transfer into a bachelor's degree in electrical or computer engineering, computer science, computer information systems, or computer network security.

EDUCATIONAL OUTCOMES

Upon Successful Completion of the AECT program, each graduate will be expected to:

- Employ critical thinking and problem-solving skills as expected in a professional work environment.
- Communicate effectively and possess the interpersonal skills necessary for success.
- Practice technical, analytical, and professional skills in a conscientious, responsible, and accountable manner.
- Recognize the need for continued professional development in the pursuit of industry certifications or continuing education towards a bachelor's degree in a technical area of interest.



PROFESSIONAL CERTIFICATIONS

Each AECT student is prepared for, and required to take each of the following nationally recognized professional certification exams:

1. CompTIA Office Pro
2. CompTIA IT Fundamentals (ITF+)
3. CompTIA A+
4. CompTIA Network+
5. Cisco Certified Support Technician
6. ETA Certified Electronics Technician
7. Network Cabling Certification
8. Anritsu RF Certification

COLLEGE ADMISSION

General admission guidelines can be found on page 34 in the catalog.

1. Official high school transcript, HiSET or GED scores.

2. Applicants who are homeschooled are required to submit an official copy of their transcript signed by the School Administrator.

3. Acceptable scores in Reading, Sentence Skills, and Numerical Math on Accuplacer. Applicants may be required to complete development coursework prior to enrollment in college level courses.

4. Accepted students must attend the Accepted Student event prior to the start of the semester.

The **Applied Electronics and Computer Technology** program technical standards have been developed to inform students of the nonacademic essential functions of the program and profession. Examples are not all inclusive.

Standard	Essential Function	Examples
Communication Oral / Written	Skills sufficient to communicate information and ideas so others will understand	Communicate with coworkers and customers

Mobility / Motor Skills	• Motor skills sufficient to move the hands and use hands to grasp or manipulate objects
	• Ability to perform basic computer functions
	• Mobility sufficient to perform physical activities that require considerable use of arms and legs and moving the whole body
	• Ability to safely operate in and around electricity
		• Work with electrical wiring
		• Enter data into a computer, open, save, and close files and programs
		• Physical activities may include:
		  • Stooping
		  • Crawling
		  • Reaching
		  • Squatting
		  • Lifting
		  • Bending
		• Use a meter to test, verify, or troubleshoot an energized circuit

Physical Strength and Stamina	Ability to participate in an activity for long periods of time	Work on a project for up to six continuous hours
Sensory **• Sight** **• Sound** **• Taste** **• Touch** **• Smell**	• Visual skills sufficient to see details at close range • Ability to distinguish colors, shades, and textures • Visual skills to inspect or assess for safety • Listening skills sufficient to communicate with others	• View blueprints, sketches, and schematic drawings • Work with wires of different colors • Inspect an area or piece of equipment for potential failures or safety issues • Hear others inside of an industrial shop or in the field by voice, loud speaker, phone, and/or two-way radio
Environmental / Occupational Exposure	• Possible exposure to extreme noise levels • Possible exposure to dust, chemicals, and fumes	
Field or Industry Professional Standards	Safely operate tools and equipment	