The Basic Electronics program is designed to provide job skills required to meet the needs of electronics and manufacturing companies and provides a path toward the completion of an associate's degree in Electronics Engineering Technology. Working in conjunction with the Keystone Community Education Committee, the Community College of Allegheny County is offering a certificate in Basic Electronics for individuals residing in the northwestern region of Pennsylvania. For those students who wish to further their education, program courses will apply towards the completion of a bachelor's degree at a four-year institution.

This program was created to accommodate the busy schedules of working individuals by providing most of the program's coursework online via the Internet. By receiving instruction directly to their home computers, students save valuable travel time and expenses while gaining access to the same courses offered on campus.

In addition to skills and knowledge in analog and digital electronics, the Basic Electronics program provides the opportunity for national certification in electronic fabrication and soldering of electronic circuits. Students will acquire skills in using multimeters, oscilloscopes, power supplies and signal generators for testing and troubleshooting and will gain experience in both thorough-hole and surface mount soldering and assembly. Students will also work with computer applications (including circuit and system simulation software), electronics measurements, circuits and microcontrollers as well as transistor and integrated circuit electronics. Upon successful completion of this program, graduates will be qualified to seek employment in technical sales, component or unit testing, product assembly and other related areas.

Possible job titles include:
- Electronics technician
- Service technician in computer manufacturing technology
- Broadcast engineer
- Sales technician manager
- Home entertainment service technician
- Repair technician
- Electronic assembler
- Soldering technician
- Field service technician
- Business owner

According to the US Department of Labor, Bureau of Labor Statistics, employment prospects are expected to keep pace with other occupations and are most favorable for those individuals with associate's degrees, certification and related experience. Experienced electronics technicians with advanced training may become specialists or troubleshooters, and workers with leaderships abilities may become supervisors.

For more information on the Basic Electronics program, please call the Keystone Community Education Council at 814.677.4427.

KEYSTONE COMMUNITY EDUCATION COUNCIL
SERVING CLARION, CRAWFORD, AND VENANGO COUNTIES AND SURROUNDING AREAS

More than 92% of CCAC graduates live and work in our region.

CERTIFICATE REQUIREMENTS

The Basic Electronics Certificate program prepares you for an entry-level position in the field of electronics by providing a basic understanding of concepts and terminology. All classes are regular courses taught in both the online and on-campus formats. Students will need to take two classes at a time starting with EGR100 (Engineering Seminar) and either EET103 (Introduction to Electronics) or SET105 (Technical Computing) depending upon the student's start date.

Required Equipment

To be involved in the online program, students will need either a desktop or laptop computer with Internet access. Students can use a dial-up or high speed connection. Students will need the following general software: Internet Explorer, MS Office or Open Office* and Windows OS (preferred). Specialized programs will be made available through the classes. These are: MathCAD, MultiSIM, Graphic Analysis* and Logisim*. In addition to tuition, other expenses include books and laboratory supplies.

*Available free from the program; other programs are fee-based.

First Semester		Credits
EET103	Introduction to Electronics	3
EGR100	Engineering Seminar	1
MAT114	Mathematics for the Technologies 1	4
MIT107**	Electronic Fabrication	3
SET105	Technical Computing	3

Second Semester		
CIT115	Information Technology	3
EET201**	Electronics 1	4
MIT103	Fundamentals of Microprocessors	3
MIT208	Digital Electronics	3

Minimum credits required to graduate		**27**

**These courses require some Saturday classes in Oil City, PA.*

All information is correct as of date of publication. However, some curriculum requirements may have changed since publication. Please consult the CCAC website at www.ccac.edu to view complete program descriptions and the latest curriculum changes, including information on course prerequisites.

Created by the CCAC Marketing and Communications department.