ELECTRICAL TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE DEGREE AND CERTIFICATE PROGRAMS

The Electrical Technology program trains students with the technical background and manual skills necessary for careers in the installation and maintenance of various modern residential, commercial, and industrial electrical systems. All State of Maine Journeyman electrical licensing educational requirements are met or exceeded in this program.

"The Electrical Technology program at KVCC is one of the best in the State. With a great student/instructor ratio there is a lot of hands-on instruction. The instructors are very knowledgeable and have many years of experience."



Become an electrician and be current in your field



What Electronical Technology graduates do:

- Install wiring
- Troubleshoot electrical problems
- Install service panels
- Connect equipment
- Install electrical devices
- Read blueprints
- Calculate volts, amps, and watts
- Work in teams or alone

Career Opportunities:

- Educational facilities
- Small businesses
- Industrial plants
- Hospital facilities
- Commercial and industrial construction
- Residential construction

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

ELECTRICAL TECHNOLOGY

Associate of Applied Science Degree

First Semester

BPT125*	Construction Print Reading	3
ENG108	Technical Writing	3
ETL113*	Electrical Circuits I	3
ETL121*	Electrical Wiring Practices I	5
MAT114	Technical Math	3

Second Semester

ETL114*	Electrical Circuits II	3
ETL120*	Rotating Machines and Transformers	3
ETL124*	Fundamentals of Electronics	3
ETL127*	Electrical Motor Control	3
MAT214	Technical Math II	3

Third Semester

COM104	Introduction to Communication OR	
COM105	Interpersonal Communication	3
ECO113	Principles of Macroeconomics (GE)	3
ETL215*	National Electrical Code	3
ETL221*	Industrial Control Systems	3
PHI110	Intro to Contemp Ethics (H)	3

Fourth Semester

ETL122*	Electrical Wiring Practices II	5
ETL216*	Advanced National Electrical Code	3
ETL222*	Introduction to Instrumentation	3
ETL225*	Photovoltaic & Small Wind Electrical Systems	3
ECO132	Personal Finance and Investing (SS)	3

Total Credits **64**

Electrical Technology Certificate

First Semester

BPT125*	Construction Print Reading	3
ETL113*	Electrical Circuits	3
ETL121*	Electrical Wiring Practices I	5
ETL215*	National Electric Code	3
MAT114	Technical Math	3

Second Semester

ENG108	Technical Writing	3
ETL114*	Electrical Circuits II	
ETL120*	Rotating Machines and Transformers	3
ETL122*	Electrical Wiring Practices II	5
ETL127*	Electrical Motor Control	3

Total Credits **34**

Students who are graduates of a two-year electrical program at a secondary career and technical center may qualify for credit for ETL121 and will not need to take this course. See program faculty for more information.

CRITERIA FOR GRADUATION

Students must complete 64 credits in the Electrical Technology degree program or 34 credits in the certificate program and achieve a minimum grade of "C" in all core courses (*). Students must attain a final GPA of 2.0 or higher. (GE,H,SS) Suggested Electives. Please contact your advisor for more information.

ELECTRICAL TECHNOLOGY

Associate of Applied Science Degree, Certificate

DESCRIPTION

The Electrical Technology (ET) program prepares students for entry level positions in the electrical field. The ET program offers both an Associate of Applied Science (AAS) degree and a Certificate option. The AAS track is designed to be completed on a full-time basis. Graduates from this program will be skilled in the installation and maintenance of various residential, commercial, and industrial electrical systems. All State of Maine journeyman electrical licensing educational requirements are met or exceeded in this program. Students are required to have the tools and equipment necessary to properly complete the hands-on portion of the program. The required tools and equipment cost will be in the range of $400-600.

PROGRAM MISSION

These Electrical Technology programs provide graduates with the technical background and the manual skills necessary for careers in the installation and maintenance of modern electrical systems, electrical equipment, and electrical controls. Graduates are critical thinkers and are able to troubleshoot problems in residential, commercial, or industrial electrical environments. The program provides students with the ability to communicate effectively using standard methods of communication. Recognizing the need for lifelong learning, the ET program helps students achieve various professional and personal goals that may arise over a lifetime, including the opportunity for transfer to other college and university technical programs.

The program strives to maintain a high academic standard for teaching and learning through a continuous process of self-assessment and improvement. Students are exposed to a learning environment that is safe and supportive of student growth and achievement. Using modern training equipment, innovative teaching methods and highly trained faculty members, the ET program endeavors to fully prepare students for a variety of electrical occupations.

EDUCATIONAL OUTCOMES

Upon successful completion of the Electrical Technology program, graduates are expected to:

1. Practice the electrical skills of the profession in a conscientious, responsible, and accountable manner while recognizing the need to continue to expand their technical knowledge and skills.
2. Communicate effectively and listen and respond appropriately to a variety of residential, commercial and industrial electrical situations.
3. Think critically and use their acquired analytical skills to solve problems encountered in a residential, commercial or industrial electrical environment.

COLLEGE ADMISSION

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

The **Electrical 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	