



# ELECTRICAL TECHNOLOGY

Become an electrician and be  
current in your field

“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.”

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.**

### What Electrical Technology graduates do:

- Install wiring
- Install service panels
- Install electrical devices
- Calculate volts, amps, and watts

- Troubleshoot electrical problems
- Connect equipment
- Read blueprints
- Work in teams or alone

### Students will learn:

- Safety standards and procedures
- Hydraulic and electrical benders
- Various electrical systems
- The National Electrical Code

- Variable frequency drives
- Programmable logic controllers
- Principles of wiring
- Green electricity principles

### Electrical Technology graduates work in:

- Educational facilities
- Industrial plants
- Commercial and industrial construction

- Small businesses
- Hospital facilities
- Residential



### Program entry requirements:

To see the entrance requirements for this program, please visit the pages ahead, and visit [www.kvcc.me.edu/prereq](http://www.kvcc.me.edu/prereq)

For further questions about this program, please contact Greg Fletcher at:

[elec@kvcc.me.edu](mailto:elec@kvcc.me.edu)

or go to:

[www.kvcc.me.edu/elec](http://www.kvcc.me.edu/elec)



# ELECTRICAL TECHNOLOGY

Course #	Course Title	Credits	Prerequisites (Co-requisites)
<b><u>Associate in Applied Science Degree</u></b>			
<b><u>FIRST SEMESTER</u></b>			
__ __	BPT125* Construction Print Reading.....	3	
__ __	ENG108 Technical Writing.....	3	Min. Accuplacer writing score of 74
__ __	ETL113* Electrical Circuits I.....	3	(MAT114)
__ __	ETL121* Electrical Wiring Practices I.....	5	(ETL113)
__ __	MAT114 Technical Math.....	3	Min. Accuplacer arithmetic score of 55
<b><u>SECOND SEMESTER</u></b>			
__ __	CPT140 Computer Aided Design I.....	3	(MAT117, BPT125 or BPT126)
__ __	ETL114* Electrical Circuits II.....	3	ETL113
__ __	ETL120* Rotating Machines and Transformers.....	3	ETL113 (ETL114)
__ __	ETL124* Fundamentals of Electronics.....	3	ETL113 (ETL114)
__ __	ETL127* Electrical Motor Control.....	3	ETL113 (ETL114, ETL120)
__ __	MAT117 College Algebra.....	3	High school algebra, min. Accuplacer algebra score of 75, or successful completion of MAT031
<b><u>THIRD SEMESTER</u></b>			
__ __	COM104 Introduction to Communication OR		
__ __	COM105 Interpersonal Communication.....	3	
__ __	ETL215* National Electrical Code.....	3	ETL121 or currently working in the field as an electrician
__ __	ETL221* Industrial Control Systems.....	3	ETL124, ETL127
__ __	PHY111 Elements of Physics.....	4	Minimum grade of "C" in MAT117 or MAT119
__ __	_____ Humanities Elective.....	3	
<b><u>FOURTH SEMESTER</u></b>			
__ __	ETL122* Electrical Wiring Practices II.....	5	ETL221
__ __	ETL216* Advanced National Electrical Code.....	3	ETL215
__ __	ETL222* Introduction to Instrumentation.....	3	ETL221
__ __	ETL225* Photovoltaic & Small Wind Electrical Systems.....	3	(ETL122)
__ __	_____ Social Science Elective.....	3	
	<b>TOTAL CREDITS .....</b>	<b>68</b>	

## Criteria for Graduation

Students must complete 68 credits in the Electrical Technology degree program and achieve a minimum grade of "C" in all core courses (\*). Students must attain a final GPA of 2.0 or higher.

**Certificate**

**FIRST SEMESTER**

__ __	ETL113*	Electrical Circuits I .....	3	..... (MAT114)
__ __	MAT114	Technical Math.....	3	..... Min. Accuplacer arithmetic score of 55

**SECOND SEMESTER**

__ __	ETL114*	Electrical Circuits II.....	3	..... ETL113
__ __	ETL120*	Rotating Machines and Transformers .....	3	..... ETL113 (ETL114)

**SUMMER SESSION 1**

__ __	ETL121*	Electrical Wiring Practices I .....	5	..... (ETL113)
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**THIRD SEMESTER**

__ __	BPT125*	Construction Print Reading.....	3	
__ __	ENG108	Technical Writing.....	3	..... Min. Accuplacer writing score of 74

**FOURTH SEMESTER**

__ __	ETL127*	Electrical Motor Control.....	3	..... ETL113 (ETL114, ETL120)
__ __	ETL215*	National Electrical Code.....	3	..... ETL121 or currently working in the field as an electrician

**SUMMER SESSION 2**

__ __	ETL122*	Electrical Wiring Practices II.....	5	..... ETL221
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**TOTAL CREDITS .....34**

Students working in the field doing electrical installations as a helper electrician may be able to get lab credit for ETL121 and ETL122. This would mean that they would only need to attend the lecture portion of the course. The course instructor(s) will determine if lab credit is available.

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 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.