



## Electrical

**Program Code:**

TE\_ELC

**Academic Area:**

Science, Technology, Engineering and Mathematics

**Type:**

Associate in Science

### Program Statement

This program prepares students to work as technicians in many positions for which training in electricity and electronics technology is required. Some of the most common areas with job opportunities are industrial manufacturing, research and development laboratory, field service, solar energy and technical sales.

### Program Information

- All technical courses use computer applications, and laboratories are equipped with modern test equipment.
- Every technical course has a related laboratory, which provides hands-on experience.
- Students should be in a Math (MTH) course every semester until they have completed their sequence.
- For students with adequate mathematical preparedness, and interested in transfer, PHY 211: General Physics I can be substituted for PHY 101: Technical Physics I.
- Completing courses in the summer will reduce fall and spring semester course loads.
- Oral Communication General Education Competency Infused.

### After Bristol

- Graduates can work as an equipment installation technician, central office technician, computer technician, engineering assistant, manufacturing lab technician, solar technician, field service and installation technician, or customer support specialist.
- If you are considering transferring to a four-year institution, speak with your advisor and visit Transfer Services for additional information.

### Degree Requirements

#### General Courses

Course #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
ENG 102	Composition II: Writing about Literature	3
	HST 113 or HST 114	3
	Human Expression Elective	3
	Multicultural and Social Perspectives Elective	3



## Program Courses

Course #	Title	Credits
EGR 131	Introduction to Electrical Circuits	4
EGR 132	Electrical Circuits	4
EGR 133	Computer Configuration and Repair	4
EGR 137	Digital Electronics	4
EGR 211	Programmable Control Systems	4
EGR 235	Electronic Theory I	4
	EGR 102 or EGR 103	3

## Program Electives

Course #	Title	Credits
	Electrical Technology Program Electives	3-4
	Two-course Math Sequence	7-8
	PHY 101 and PHY 102	8

## Recommended Course Sequence - Semester 1

Course #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
EGR 131	Introduction to Electrical Circuits	4
PHY 101	Technical Physics I	4
	MTH 152, MTH 172 or MTH 214	3-4

## Recommended Course Sequence - Semester 2

Course #	Title	Credits
PHY 102	Technical Physics II	4
	EGR 102 or EGR 103	3
EGR 132	Electrical Circuits	4
	MTH 172, MTH 214 or MTH 215	4



## Recommended Course Sequence - Semester 3

Course #	Title	Credits
ENG 102	Composition II: Writing about Literature	3
	Multicultural and Social Perspectives Elective or Human Expression Elective	3
	HST 113 or HST 114	3
EGR 137	Digital Electronics	4
EGR 235	Electronic Theory I	4

## Recommended Course Sequence - Semester 4

Course #	Title	Credits
EGR 133	Computer Configuration and Repair	4
EGR 211	Programmable Control Systems	4
	Multicultural and Social Perspectives Elective or Human Expression Elective	3
	Program Elective	3-4
	<b>Total credits:</b>	<b>60-63</b>

## Category Descriptions

### HST 113 or HST 114

Credits: 3

Choose one of the following:

Course #	Title	Credits
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3

### Human Expression Elective

Credits: 3

Choose one Human Expression elective.

*The following electives are recommended: ARC 201, COM 101, COM 114, PHL 152 or World Language.*

### Multicultural and Social Perspectives Elective

Credits: 3

Choose one of the following:



Course #	Title	Credits
GVT 111	U.S. Government	3
GVT 112	Comparative Government	3
HST 111	The West and the World I	3
HST 112	The West and the World II	3
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3
HST 257	History of Modern East Asia (China and Japan)	3

## EGR 102 or EGR 103

Credits: 3

Choose one of the following:

Course #	Title	Credits
EGR 102	Introduction to Sustainable and Green Energy Technologies	3
EGR 103	Computer Skills for Engineers and Technicians	3

## Electrical Technology Program Electives

Credits: 3-4

Choose one of the following:

Course #	Title	Credits
CIS 121	Operating Systems	3
CIS 160	The Microcomputer Environment	3
CHM 113	Fundamentals of Chemistry I	4
EGR 113	Introduction to Robotics	4
EGR 282	Wind Power Technology	4
EGR 284	Solar Power	4
EGR 299	Engineering Projects	4
INT 210	Internship Experience I	3
	SCI 251 and HON 260	4

## Two-course Math Sequence

Credits: 7-8

Choose one two-course math sequence.

Course #	Title	Credits
	MTH 152 and MTH 172	7
	MTH 172 and MTH 214	8
	MTH 214 and MTH 215	8



## PHY 101 and PHY 102

Credits: 8

*For students with adequate mathematics preparedness and interested in transfer, PHY 211 and PHY 212 may be substituted for PHY 101 and PHY 102.*

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
PHY 101	Technical Physics I	4
PHY 102	Technical Physics II	4