## Electrical

Program: Engineering Technology
Program Code:
TE_ELC
Academic Area:
Science, Technology, Engineering and Mathematics
Type:
Associate in Science
CIP Code:
15.0303

## 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 | 3 |
|  | Elective |  |
|  | 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 | 3 |
|  | Elective | Program Elective |
|  | Total credits: | $\mathbf{6 - 4}$ |
|  |  |  |

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 of the Human Expression electives.
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 |
| PSY 271 | Global Leadership | 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, ㅁHY211 and PHY 212 may be substituted for PHY 101 and PHY 102.

| Course \# | Title | Credits |
| :--- | :--- | :--- |
| PHY 101 | Technical Physics I | 4 |
| PHY 102 | Technical Physics II | 4 |

