

# ELECTRICAL ENGINEERING TECHNOLOGY, A.ENG.T. (BEHREND)

Begin Campus: Erie

End Campus: Erie

## Degree Requirements

For the Associate in Engineering Technology degree in Electrical Engineering Technology, a minimum of 65 credits is required:

| Requirement                | Credits |
|----------------------------|---------|
| General Education          | 21      |
| Requirements for the Major | 56-62   |

12-15 of the 21 credits for General Education are included in the Requirements for the Major. This includes: 3 credits of GN courses; 3 credits of GQ courses; 6 credits of GWS courses, 0-3 credits of GH or GS.

### Requirements for the Major

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44>).

| Code  | Title   | Credits |
|---|---|---------|
| <b>Prescribed Courses</b>                                 |   |         |
| CAS 100   | Effective Speech  | 3       |
| CMPET 211   | Embedded Processors and DSP   | 3       |
| EET 212W  | Op Amp and Integrated Circuit Electronics   | 4       |
| EET 214   | Electric Machines and Energy Conversion   | 3       |
| EET 215   | Electric Machines and Energy Conversion Laboratory  | 1       |
| <i>Prescribed Courses: Require a grade of C or better</i> |   |         |
| CMPET 117   | Digital Electronics   | 3       |
| CMPET 120   | Digital Electronics Laboratory  | 1       |
| EET 114   | Electrical Circuits II  | 4       |
| EET 118   | Electrical Circuits Laboratory  | 1       |
| <b>Additional Courses</b>                                 |   |         |
| ENGL 15   | Rhetoric and Composition  | 3       |
| or ENGL 30H   | Honors Rhetoric and Composition   |         |
| PHYS 150  | Technical Physics I   | 3-4     |
| or PHYS 211   | General Physics: Mechanics  |         |
| or PHYS 250   | Introductory Physics I  |         |
| Select 5-6 credits of the following:                      |   | 5-6     |
| MATH 22 & MATH 26   | College Algebra With Analytic Geometry and Applications II and Plane Trigonometry and Applications of Trigonometry <sup>1</sup> |         |
| MATH 40   | Algebra, Trigonometry, and Analytic Geometry <sup>1</sup>   |         |
| MATH 81 & MATH 82   | Technical Mathematics I and Technical Mathematics II <sup>1</sup>   |         |

Select at least 22-26 credits from one of the following three tracks: 22-26

#### A. General Track <sup>2</sup>

|           |  |
|-----------|--|
| EDSGN 100 | Cornerstone Engineering Design   |
| EET 105   | Electrical Systems   |
| EET 275   | Introduction to Programmable Logic Controls<br>or EMET 230 Computerized I/O Systems  |
| IET 101   | Manufacturing Materials, Processes, and Laboratory   |
| MET 111   | Mechanics for Technology: Statics  |
| PHYS 151  | Technical Physics II<br>or PHYS 212 General Physics: Electricity and Magnetism<br>or PHYS 251 Introductory Physics II<br>or CHEM 110 Chemical Principles I & CHEM 111 and Experimental Chemistry I |
| STS 200   | Critical Issues in Science, Technology, and Society<br>or STS/<br>PHIL 233<br>or STS 245   |

Select 3-4 credits in consultation with your adviser from the approved program list

#### B. Baccalaureate Electrical and Computer Engineering Technology (ECET) Track:

|          |  |
|----------|--|
| CHEM 110 | Chemical Principles I  |
| CHEM 111 | Experimental Chemistry I   |
| CMPET 5  | Engineering Methods in Engineering Technology  |
| EET 2    | Introduction to Engineering Technology   |
| EET 101  | Electrical Circuits I  |
| EET 109  | Electrical Circuits Laboratory I   |
| EET 275  | Introduction to Programmable Logic Controls  |
| EGT 119  | Introduction to CAD for Electrical and Computer Engineering  |
| MATH 83  | Technical Calculus<br>or MATH 140 Calculus With Analytic Geometry I                                      |
| MATH 210 | Calculus with Engineering Technology Applications (or 3 credits of General Education natural science GN) |

#### C. Baccalaureate Electro-Mechanical Engineering Technology (EMET) Track <sup>2,3</sup>

|           |  |
|-----------|--|
| EDSGN 100 | Cornerstone Engineering Design   |
| EET 105   | Electrical Systems   |
| EET 275   | Introduction to Programmable Logic Controls<br>or EMET 230 Computerized I/O Systems  |
| IET 101   | Manufacturing Materials, Processes, and Laboratory   |
| MET 111   | Mechanics for Technology: Statics  |
| MATH 83   | Technical Calculus<br>or MATH 140 Calculus With Analytic Geometry I  |
| PHYS 151  | Technical Physics II<br>or PHYS 212 General Physics: Electricity and Magnetism<br>or PHYS 251 Introductory Physics II<br>or CHEM 110 Chemical Principles I & CHEM 111 and Experimental Chemistry I |
| STS 200   | Critical Issues in Science, Technology, and Society  |

or STS/ Ethics and the Design of Technology  
PHIL 233  
or STS 245

- <sup>1</sup> A student planning to re-enroll into the baccalaureate degree major of Electro-Mechanical Engineering Technology (EMET), after graduation from the 2 EET program, must receive a grade of C or better in order to meet requirements of the EMET degree.
- <sup>2</sup> This includes 3 credits of General Education courses: 3 credits of GH or GS.
- <sup>3</sup> A student planning to re-enroll into the baccalaureate degree major of Electrical Engineering Technology at Penn State Harrisburg, after graduation from the 2EET program, should follow Track C. They should select MATH 140 instead of MATH 83.

## General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all associate degree students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (<https://bulletins.psu.edu/undergraduate/general-education/associate-degree-general-education-program/>) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

### Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)

- **Quantification (GQ):** 3 credits
- **Writing and Speaking (GWS):** 3 credits

### Knowledge Domains

- **Arts (GA):** 3 credits
- **Humanities (GH):** 3 credits
- **Social and Behavioral Sciences (GS):** 3 credits
- **Natural Sciences (GN):** 3 credits

**Note:** Up to six credits of Inter-Domain courses may be used for any Knowledge Domain requirement, but when a course may be used to satisfy more than one requirement, the credits from the course can be counted only once.

### Exploration

- **Any General Education course (including GHW and Inter-Domain):** 3 credits

## University Degree Requirements

### Cultures Requirement

3 credits of United States (US) or International (IL) cultures coursework are required and may satisfy other requirements

### Writing Across the Curriculum

3 credits required from the college of graduation and likely prescribed as part of major requirements.

### Total Minimum Credits

A minimum of 60 degree credits must be earned for an associate degree. The requirements for some programs may exceed 60 credits. Students should consult with their college or department adviser for information on specific credit requirements.

### Quality of Work

Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

### Limitations on Source and Time for Credit Acquisition

Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80>)). For more information, check the Suggested Academic Plan for your intended program.