College of Health, Science, and Technology
Department of Physical and Environmental Sciences: Biochemistry, Chemistry, Engineering, Geography, Geology, and Physics

Bloomsburg LOCK HAVEN MANSFIELD
COMMONWEALTH UNIVERSITY

# Electronics Engineering Technology

## Bachelor of Science (BS)

This degree map is based on the current Academic Catalog and is subject to change. Please note that the degree map is designed to give you a sense of roughly how courses might be distributed over a 4-year degree. Your exact schedule will differ depending on a range of factors though we recommend taking a minimum of 15 credits each fall and spring semester. Regular consultation with your academic advisor is the best way to make sure that you are taking the courses you need in the right order to ensure efficient progress through your degree program.

### Sample 4 1/2-Year Plan

| First Year | | | |
|---|---|---|---|
| **Fall Courses** | **Credits** | **Spring Courses** | **Credits** |
| ENGT101 Intro to Engineering Tech | 3 | MATH160 Calculus 1 (GenEd: Q) | 4 |
| Free Elective (MATH140 Precalculus, if needed) | 3 | PHYS211 General Physics 1 (N) | 4 |
| General Education course (U, First Year Seminar) | 3 | COMM101 Public Speaking (O) | 3 |
| WRIT103 Foundations in Composition (W) | 3 | ENGT180 CAD & Engineering Graphics | 3 |
| General Education Course (H) | 3 | | |
| Semester Total | 15 | Semester Total | 14 |

| Second Year | | | |
|---|---|---|---|
| **Fall Courses** | **Credits** | **Spring Courses** | **Credits** |
| ENGT141 Circuit Analysis | 4 | CHEM121 General Chemistry 1 (N) | 4 |
| PHYS212 General Physics 2 | 4 | PHYS315 Electronics | 4 |
| MATH170 Calculus 2 | 4 | CMSC115 Python Programming (T) | 3 |
| General Education Course (D) | 3 | General Education Course (G) | 3 |
| Semester Total | 15 | Semester Total | 14 |

| Third Year | | | |
|---|---|---|---|
| **Fall Courses** | **Credits** | **Spring Courses** | **Credits** |
| ENGT241 Elect Instrument & Data Acquisition | 3 | ENGT331 Linear Signals and Systems | 4 |
| PHYS316 Digital Electronics | 3 | ENGT321 Manufacturing and Automation | 3 |
| ENGT231 Electrical Machines and Power Systems | 4 | ENGT300 Engineering Your Career | 2 |
| General Education Course (D or G or F) | 3 | PHYS317 Computer Electronics | 3 |
| General Education Course (E) | 3 | General Education Course (S or R) | 3 |
| Semester Total | 16 | Semester Total | 15 |

| Summer | | | |
|---|---|---|---|
| **Summer Courses** | **Credits** | | |
| ENGT380 Cooperative Education in Industry | 1 | | |
| Semester Total | 1 | Semester Total | 0 |

| Fourth Year | | | |
|---|---|---|---|
| **Fall Courses** | **Credits** | **Spring Courses** | **Credits** |
| Industry Co-op continues through Fall semester | 0 | ENGT431 Industrial Process Control | 3 |
| | | ENGT441 Communication Systems | 4 |
| | | ENGT381 Engineering Applications in Industry | 2 |
| | | General Education Course (L) | 3 |
| Free Elective | | Free Elective | 3 |
| Semester Total | 0 | Semester Total | 15 |

| Fifth Year | | | |
|---|---|---|---|
| **Fall Courses** | **Credits** | | |
| ENGT461 Radio Freq Effects and Measurements | 3 | | |
| ENGT491 Senior Design Projects | 3 | | |
| General Education Course (A or C) | 3 | | |
| Free Elective | 3 | | |
| Free Elective | 3 | | |
| Semester Total | 15 | | |

*Revised March 2025*

# Electronics Engineering Technology

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## Curriculum Checklist

**Required Courses (75 credits)**

___ ENGT101 Introduction to Engineering Technology (3)
___ ENGT180 Computer Aided Design & Engineering Graphics (3)
___ ENGT141 Circuit Analysis (4)*
___ ENGT231 Electrical Machines and Power Systems (4)*
___ ENGT241 Electronic Instrumentation and Data Acquisition (3)*
___ ENGT300 Engineering Your Career (2)*
___ ENGT321 Manufacturing and Automation (3)*
___ ENGT331 Linear Signals and Systems (4)*
___ ENGT380 Cooperative Education in Industry (1)*
___ ENGT381 Engineering Applications in Industry (2)*
___ ENGT431 Industrial Process Control (3)*
___ ENGT441 Communication Systems (4)*
___ ENGT461 Radio-Frequency Effects and Measurements (3)*
___ ENGT491 Senior Design Project (3)*
___ PHYS211 General Physics 1 (4) (N)*
___ PHYS212 General Physics 2 (4)*
___ PHYS315 Electronics (4)*
___ PHYS316 Digital Electronics (3)*
___ PHYS317 Computer Electronics (3)*
___ CHEM121 General Chemistry 1 (4) (N)
___ COMM101 Public Speaking (3) (O)
___ CMSC115 Python Programming (3) (T)
___ MATH160 Calculus 1 (4) (Q)*
___ MATH170 Calculus 2 (4)*
___ WRIT 103 Foundations in Composition (3) (W)

*Denotes advanced coursework

Students must take a minimum of 42 credits of advanced coursework. Advanced coursework can be met in major courses, minor courses, free elective courses, and general education courses. Courses that meet this requirement are designated in Banner.

## General Education Requirements (45 credits)

***Note: Some requirements may be fulfilled by coursework in your major program including directed Gen Ed courses noted below***

- Foundations (15 credits)
  - FYS (U): FYS100 First Year Seminar
  - Writing (W): WRIT 103 Foundations in Composition
  - Oral Comm. (O): COMM101 Public Speaking
  - Quantitative (Q): MATH160 Calculus 1
  - History (H):
- Interconnections (9 credits)
  - Diversity (D):
  - Global Perspectives. (G):
  - D or G or Foreign Lang. (F):
- Citizenship & Responsibility
  (6 credits from at least two goals)
  - Goal 1: Citizenship (S):
  - Goal 2 Ethical Reasoning (E):
  - Goal 3: Crit. Reasoning (R):
- Natural World & Technologies (9 credits)
  - Natural World (N): CHEM121 General Chemistry 1
  - Natural World (N): PHYS211 General Physics 1
  - Technology (T): CMSC115 Python Programming
- Creativity & Expression (6 credits)
  - Literature (L):
  - Arts (A) or Creativity (C):

## Degree Requirements

All students must obtain a minimum of 120 credits (a minimum of 42 credits must be advanced coursework), complete all General Education requirements, and all requirements for the selected major. Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

*A minimum GPA of 2.0 in the major and overall are required.*

The Electronics Engineering Technology program is a 4.5 year program as students complete co-op education at off-campus industrial locations in their third summer and fourth fall.

*Pathway for Lock Haven and Mansfield campuses:

2 years blended learning at LH or MA, followed by

1 year in person at BL

0.5 year (summer plus fall) in co-op

1 year (spring then fall) in person at BL