College of Science and Technology
Department of Biochemistry, Chemistry, Engineering and Physics

Bloomsburg LOCK HAVEN MANSFIELD
COMMONWEALTH UNIVERSITY

Engineering Physics

Bachelor of Science (BS)

This degree map is based on the 2023-24 Academic Catalog and is subject to change. Students should meet with their academic advisor each semester and use Degree Works to monitor their individual progress toward degree completion. The time it takes to earn a degree will vary based on several factors including summer/winter enrollment, dual enrollment and number of courses successfully completed each semester. We recommend taking a minimum of 15 credits each fall and spring semester.

Sample 4-Year Plan

First Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
ENGT101 Intro to Engineering Tech	3	MATH170 Calculus 2	4
MATH160 Calculus 1 (GenEd: Q)	4	PHYS211 General Physics (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 Courses (H)	3		
Semester Total	16	Semester Total	14

Second Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
ENGT141 Circuit Analysis	4	PHYS310 Modern Physics	3
PHYS212 General Physics 2	4	PHYS315 Electronics	4
MATH270 Calculus 3	4	CMSC115 Python Programming (T)	3
General Education Course (D)	3	Free Elective	3
Semester Total	15	Semester Total	13

Third Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
ENGT241 Elect Instrument & Data Acquisition	3	PHYS302 Dynamics	3
PHYS301 Statics	3	MATH370 Differential Equations	3
CHEM121 General Chemistry 1 (N)	3	ECC122 Principles of Microeconomics (R)	3
General Education Course (D or G or F)	3	General Education Course (E)	3
Free Elective	3	ENGL270 Technical Writing	3
Semester Total	16	Semester Total	15

Fourth Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
PHYS304 Nanosciences	4	PHYS404 Advanced Nanosciences Lab	3
PHYS422 Thermodynamics	3	PHYS442 Math Methods	3
General Education (G)	3	ENGT381 Engineering Applications in Industry	3
General Education (A or C)	3	General Education Course (L)	3
Free Elective	3	Free Elective	3
Semester Total	16	Semester Total	15

Winter/Summer College - Optional

While not required, Winter and Summer sessions are offered each year and may help you stay on track or get ahead. You may take up to seven (7) credits during Winter College and up to 14 credits during Summer College.

Revised June, 2023

Engineering Physics

COMMONWEALTH UNIVERSITY

Curriculum Checklist

Required Courses (81 credits)

___ ENGT 101 Introduction to Engineering Technology (3)
___ ENGT 180 Computer Aided Design & Engineering Graphics (3)
___ ENGT 141 Circuit Analysis (4)
___ ENGT 241 Electronic Instrumentation & Data Acquisition (3)
___ ENGL 270 Technical Writing (3)
___ PHYS 212 General Physics 2 (4)
___ PHYS310 Modern Physics (3)
___ PHYS301 Statics (3)
___ PHYS302 Dynamics (3)
___ MATH370 Differential Equations (3)
___ PHYS304 Nanosciences (4)
___ PHYS404 Advanced Nanosciences Lab (3)
___ PHYS422 Thermodynamics (3)
___ PHYS442 Math Methods (3)
___ PHYS 315 Electronics (4)
___ MATH270 Calculus 3 (4)
___ MATH 170 Calculus 2 (4)
___ MATH 160 Calculus 1 (Q) (4)
___ PHYS 211 General Physics 1 (N) (4)
___ CHEM 121 Chemistry for the Sciences 1 (N) (4)
___ CMSC 115 Python Programming (T) (3)
___ COMM101 Public Speaking (O) (3)
___ ECC122 Principles of Microeconomics (R) (3)
___ WRIT103 Foundations in Composition (W) (3)

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): WRIT103 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 (C):
  - Goal 2 Ethical Reasoning (E):
  - Goal 3: Crit. Reasoning (R): ECC122 Principles of Microeconomics
- Natural World & Technologies (9 credits)
  - Natural World (N): PHYS211 General Physics 1
  - Natural World (N): CHEM121 General Chemistry 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, 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.

Campus Locations

Bloomsburg	☐ Online; ☒ In-person; ☐ Blended
Lock Haven	☐ Online; *☒ In-person; ☐ Blended
Mansfield	☐ Online; *☒ In-person; ☐ Blended
Clearfield	☐ Online; ☐ In-person; ☐ Blended

2+2: First two years of the curriculum are offered at the respective home campus (Lock Haven or Mansfield) and the final two years of the curriculum are offered at the Bloomsburg campus.*