College of Health, Science, and Technology

3+2 Accelerated B.S/M.S in Biology

Bachelor of Science (BS) and Master of Science (MS)

This degree map is based on the 2025-26 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 5-Year Plan

First Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
BIOL 110 Principles of Biology 1	4	BIOL 111 Principles of Biology 2	4
CHEM 121 General Chemistry 1	4	CHEM 122 General Chemistry 2	4
FYS 100 First year seminar	3	WRIT 103 Foundations in Composition	3
General Education	3	General Education	3
Semester Total	14	Semester Total	14

Second Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
BIOL 211 Cell Biology	4	BIOL 201 Introduction to Biological Research	3
CHEM 231 Condensed Organic Chemistry	4	BIOL 209 Genetics	3
STAT 141 Introduction to Statistics	3	BIOL 210 Genetics Lab (optional)	1
General Education	3	MATH 150 Essentials of Calculus or MATH 160 Calculus 1	4
		Biology elective	3
		General Education	3
Semester Total	14	Semester Total	17

Third Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
BIOL 301 Ecology (FALL ONLY)	4	Biology elective	3
PHYS 208 Introduction to Physics 1	4	Biology elective	3
Biology elective	3	Biology elective	3
General Education	3	General Education	3
General Education	3	General Education	3
Semester Total	16	Semester Total	15

Fourth Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
Biology elective	3	STAT 543 Biostatistics or Biology elective (4/500 level)	3
BIOL 586 ACBD or Biology elective (4/500 level)	3	Biology elective (4/500 level)	3
Biology elective (4/500 level)	3	General Education	3
General Education	3	Free elective	3
Free elective	3	Free elective	3
Semester Total	15	Semester Total	15

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Summer Session			
Summer Course	**Credits**		
BIOL 594 Thesis Credits	6		
Semester Total	6		

Fifth Year			
Fall Courses	**Credits**	**Spring Courses**	**Credits**
Biology elective (500 level)	3	Biology elective (500 level)	3
Biology elective (500 level)	3	Biology elective (500 level)	3
Semester Total	6	Semester Total	6

3+2 BS/MS in Biology

Bloomsburg LOCK HAVEN MANSFIELD
COMMONWEALTH UNIVERSITY

Curriculum Checklist

Biology Core Requirements (28 credits)

___ BIOL 110 Principles of Biology 1 (4)
___ BIOL 111 Principles of Biology 2 (4)
___ BIOL 201 Intro to Bio Research (3)
___ BIOL 209 Genetics (3)
___ BIOL 211 Cell Biology (4)
___ BIOL 301 Ecology (4)
___ BIOL 586 Analysis & Comm of Biol Data (3) OR STAT 542 Biostatistics (3)
___ BIOL 594 Master of Science Thesis (6)

Related Core Requirements (29 credits)

___ CHEM 121 General Chemistry 1 (4)
___ CHEM 122 General Chemistry 2 (4)
___ CHEM 231 Condensed Organic Chemistry (4) OR CHEM 281 Organic Chemistry (4)
___ PHYS 208 Intro to Physics 1 (4) OR PHYS 211 General Physics 1 (4)
___ STAT 141 Intro to Statistics (3)
___ MATH 150 Essentials of Calculus (3) OR MATH 160 Calculus 1 (3)
___ STAT 542 Biostatistics (3) OR BIOL 586 Analysis & Comm of Biol Data (3)

Electives (30 credits + 21 credits of 500-level BIOL coursework)

Choose 8-10 courses at 200-level or above; *at least four electives must have a lab; at least 20 credits must come from courses that are at the 300-level or above; maximum of 6 credits of BIOL 493 or BIOL 498 can be used – these experiences do not count as "course with a lab". *designates course with a lab. 500-level courses can be used to fulfill up to 12 credits of electives for the BS Biology degree. **BIOL 587 to be taken with 1 credit lab courses (BIOL 544, 547, 570, 580).

___ BIOL 206 Botany (3)*
___ BIOL 207 Zoology (3)*
___ BIOL 208 Human Genetics (3)
___ BIOL 213 Intro to Parasitology (3)*
___ BIOL 252 Watershed Eco Tech (3)*
___ BIOL 314 Comp Bio of Invert (3)*
___ BIOL 315 Comparative Vert Anat (3)*
___ BIOL 316 Vertebrate Histology (3)*
___ BIOL 337 Basic Virology (3)
___ BIOL 340 Microbiology (4)*
___ BIOL 350 Plant Pathology (3)
___ BIOL 354 Medical Microbiology (3)*
___ BIOL 4/500 Dendrology (3)*
___ BIOL 4/501 Entomology (3)*
___ BIOL 4/519 Ecosystems (3)*
___ BIOL 4/520 Global Change Bio (3)
___ BIOL 4/530 Evolution (3)
___ BIOL 4/531 Mycology (3)*
___ BIOL 4/532 Ornithology (3)*
___ BIOL 4/533 Ichthyology (3)*
___ BIOL 4/534 Herpetology (3)*
___ BIOL 4/535 Conservation Genetics (3)
___ BIOL 4/538 Environmental Policies (3)
___ BIOL 4/539 Hum Dim in Fisheries Mg (3)*
___ BIOL 4/542 Advanced Virology (3)
___ BIOL 4/540 Mg of Sm. Impoundments (3)*
___ BIOL 4/541 Mg of Lg. Impoundments (3)*
___ BIOL 4/543 Molecular Biology (3)
___ BIOL 4/544 Molecular Biology Lab (1) *
___ BIOL 4/545 Pharmacology (3)
___ BIOL 4/546 Immunology (3)
___ BIOL 4/547 Immunology Lab (1) *
___ BIOL 4/548 Advanced Parasitology (3)*
___ BIOL 4/550 Developmental Biology (3)*
___ BIOL 4/551 Conservation Biology (3)
___ BIOL 4/552 Freshwater Ecology (3)*
___ BIOL 4/553 Freshwater Entomology (3)*
___ BIOL 4/554 Algae of Freshwater Eco (3)*
___ BIOL 4/555 Community Ecology (3)*
___ BIOL 4/556 Enviro Toxicology (3)
___ BIOL 4/560 Plants, Animals, Nat. His. of PA (3)*
___ BIOL 4/561 Animal Behavior (3)*
___ BIOL 4/562 Cancer Biology (3)
___ BIOL 4/565 Medical Genomics (3)
___ BIOL 4/566 Bioinformatics (3)
___ BIOL 4/570 Tissue Culture (1) *
___ BIOL 4/571 Endocrinology (3)
___ BIOL 4/573 Environmental Physiology (3)
___ BIOL 4/574 Human Physiology (3)
___ BIOL 4/575 Animal Cell Physiology (3)
___ BIOL 4/576 Neurophysiology (3)
___ BIOL 4/577 Plant Physiology (3)
___ BIOL 4/579 Comparative Animal Physiology (3)
___ BIOL 4/580 Integrated Physiology Lab (1)*
___ BIOL 4/586 Analysis & Comm of Bio Data (3)
___ BIOL 4/587 Genomics and Genetic Eng (2) **
___ BIOL 4/589 Special Topics in Biology (3)
___ BIOL 4/598 Internship in Biology (3-6)

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)
  - MATH 150 or MATH 160 or STAT 141
- Interconnections (9 credits)
- Citizenship & Responsibility (6 credits from at least two goals)
- Natural World & Technologies (9 credits)
  - BIOL 111
  - CHEM 121
  - PHYS 208 or PHYS 211
- Creativity & Expression (6 credits)

Degree Requirements

All students must obtain a minimum of 120 credits, complete all General Education requirements, and all requirements for the selected major. The BS Biology program consists of a minimum of 120 credit hours/MS Biology requires a minimum of 30 credit hours. Students must complete ≥90 credit hours and maintain a ≥3.0 GPA in order to enroll in graduate courses in the fourth year.

Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

Campus Locations

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

Revised June, 2023