

Biology

Master of Biology, Thesis-track

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.

Sample 2 Year Plan- Full Time – Spring Start

First Year					
Spring Courses	Credits	Summer Courses	Credits	Fall Courses	Credits
Elective	3			Research Methods or Bioinformatics	3
Elective	3			Elective	3
Identify Project and mentor				Thesis Proposal	
Semester Total	6	Semester Total	0	Semester Total	6

Second Year					
Spring Courses	Credits	Summer Courses	Credits	Fall Courses	Credits
Elective	3	Thesis Credits	6	Elective	3
Elective	3			Elective	3
Oral Examination				These Defense	
Semester Total	6	Semester Total	0	Semester Total	6

Total Credits: 30

Part-time or Full-time completion options are available.

Degree Requirements

This course map indicates full-time matriculation and a Spring semester start. However, the review of applications and acceptance into this program is in a rolling basis. A student can start in any semester and can choose a part-time option as well. An adviser will establish a course map for you if you decide to start in Spring/Summer semesters or decide to take a part-time option.

Students must complete all 30 credits and all course 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 3.0 is required to maintain enrollment in the program.

Campus Locations

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

Curriculum Checklist

A. Biological Research Methods OR Biostatistics (3 credits)

___BIOL 586 Analysis and Communication of Biological Data

___STAT 546 Biostatistics

B. Thesis (6 credits)

___BIOL 594 Master of Science Thesis

C. Topic Specific Electives (21 credits)

___BIOL 500 Dendrology (3)

___BIOL 501 Entomology (3)

___BIOL 519 Ecosystems (3)

___BIOL 520 Global Change Bio (3)

___BIOL 530 Evolution (3)

___BIOL 531 Mycology (3)

___BIOL 532 Ornithology (3)

___BIOL 533 Ichthyology (3)

___BIOL 534 Herpetology (3)

___BIOL 535 Conservation Genetics (3)

___BIOL 538 Environmental Policies (3)

___BIOL 539 Hum Dim in Fisheries Mg (3)

___BIOL 541 Mg of Lg Impoundments (3)

___BIOL 543 Molecular Biology (3)

___*BIOL 544 Molecular Biology lab (1)

___BIOL 545 Pharmacology (3)

___BIOL 546 Immunology (3)

___*BIOL 547 Immunology lab (1)

___BIOL 548 Advanced Parasitology (3)

___BIOL 550 Developmental Biology (3)

___BIOL 551 Conservation Biology (3)

___BIOL 552 Freshwater Ecology (3)

___BIOL 553 Freshwater Entomology (3)

___BIOL 554 Algae of Freshwater Eco (3)

___BIOL 555 Community Ecology (3)

___BIOL 556 Enviro Toxicology (3)

___BIOL 560 Plants, Animals, Natural History of PA (3)

___BIOL 561 Animal Behavior (3)

___BIOL 562 Cancer Biology (3)

___BIOL 565 Medical Genomics (3)

___BIOL 566 Bioinformatics (3)

___*BIOL 570 Tissue Culture (1)

___BIOL 571 Endocrinology (3)

___BIOL 573 Environmental Physiology (3)

___BIOL 574 Human Physiology (3)

___BIOL 575 Animal Cell Physiology (3)

___BIOL 576 Neurophysiology (3)

___BIOL 577 Plant Physiology (3)

___BIOL 579 Comparative Animal Physiology (3)

___*BIOL 580 Integrated Physiology lab (1)

___BIOL 586 Analysis & Comm of Bio Data (3)

___BIOL 587 Genomics and Genetic Engineering(2)

___BIOL 589 Special Topics in Biology (3)3

___BIOL 598 Internship in Biology (3-6crs)

*Take with BIOL 587