

# M.S. Biology

## (Departmental Paper Option)

### Masters 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.

### Sample 2-Year Plan

#### First Year

Fall Courses	Credits	Spring Courses	Credits
BIOL 586 ACBD or 500-level Biology Elective	3	STAT 546 Biostatistics or 500-level Biology Elective	3
500-level Biology Elective	3	500-level Biology Elective	3
Semester Total	6	Semester Total	6

#### Summer

Summer	Credits		
500-level Biology Elective	3		
500-level Biology Elective	3		
Semester Total	6		

#### Second Year

Fall Courses	Credits	Spring Courses	Credits
500-level Biology Elective	3	500-level Biology Elective	3
500-level Biology Elective	3	500-level Biology Elective	3
Semester Total	6	Semester Total	6

## Curriculum Checklist

### A. Statistics (3 credits)

- \_\_\_ BIOL 586 Analysis & Comm of Biol Data (3)
- \_\_\_ STAT 542 Biostatistics (3)

### B. Electives (27 credits of 500-level BIOL coursework)

\*BIOL 587 to be taken with 1 credit lab courses (BIOL 544, 547, 570, 580).

- \_\_\_ 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 540 Mg of Sm. Impoundments (3)
- \_\_\_ BIOL 541 Mg of Lg. Impoundments (3)
- \_\_\_ BIOL 542 Advanced Virology (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, Nat. His. 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 Eng (2) \*
- \_\_\_ BIOL 589 Special Topics in Biology (3)
- \_\_\_ BIOL 598 Internship in Biology (3-6)

## Degree Requirements

Students must complete at least 30 credit hours of graduate course work. They must complete a literature-based paper on a topic selected by the student and the academic advisor or mentor for the paper. The Departmental Paper carries no credit hour equivalent. The paper must be presented orally to the Biology Department.

*A minimum GPA of 3.0 in the major and overall are required.*

## Campus Locations

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|-------------------|---|
| <b>Bloomsburg</b> | <input type="checkbox"/> Online; <input checked="" type="checkbox"/> In-person; <input type="checkbox"/> Blended            |
| <b>Lock Haven</b> | <input type="checkbox"/> Online; <input checked="" type="checkbox"/> In-person; <input type="checkbox"/> Blended            |
| <b>Mansfield</b>  | <input checked="" type="checkbox"/> Online; <input checked="" type="checkbox"/> In-person; <input type="checkbox"/> Blended |