

BIOLOGY (M.S.)

For details about this program, including program description, admission requirements, and contact information, click here (<https://www.montclair.edu/graduate/programs-of-study/biology-ms/>).

Program Requirements

Code	Title	Credits
Required Courses		
BIOL 520	Plant Physiology	3
or BIOL 540	Mammalian Physiology	
BIOL 547	Molecular Biology I	3
BIOL 570	Ecology	3
BIOL 597	Research in Biological Literature	1
Electives and Culminating Experience		
<i>Biology Areas of Emphasis</i>		
Select 16-19 credits from the list below. ¹		16-19
<i>Thesis or Non-Thesis Option</i>		
Select one of the following:		4-6
Thesis Option		
BIOL 698	Master's Thesis	
Submit the completed Thesis original and one copy to the Graduate Office. See Thesis Guidelines for details.		
Research or Lab/Field Course Option		
BIOL 599	Introduction to Biological Research ²	
GRAD CMP	Comprehensive Examination	
In the term that you will sit for exam, register for the section which matches your major & advisor. Successfully pass exam.		
Total Credits		32

¹ BIOL 514 is recommended.

² Or Biology/Lab Field course approved by Graduate Program Coordinator.

Biology Areas of Emphasis

Code	Title	Credits
BIOL 500	Introductory Molecular Cell Biology	1.5
BIOL 510	Biology Pedagogy for Secondary Teachers	3
BIOL 512	Special Topics in Modern Genetics	3
BIOL 514	Graduate Seminar in Biology	2
BIOL 518	Strategies for Teaching College Biology	1
BIOL 520	Plant Physiology	3
BIOL 521	Field Studies of Flowering Plants	4
BIOL 529	Advanced Herpetology	4
BIOL 532	Advanced Entomology	3
BIOL 533	Advanced Cell Biology	3
BIOL 535	Advanced Community Ecology	3
BIOL 540	Mammalian Physiology	3
BIOL 542	Advanced Endocrinology	3
BIOL 543	Advances in Immunology	3
BIOL 544	Advanced Comparative Animal Physiology	3
BIOL 545	Experimental Endocrinology	4
BIOL 546	Special Topics in Physiology	3

BIOL 548	Molecular Biology II	4
BIOL 549	Special Topics in Developmental Biology	3
BIOL 550	Special Topics in Microbiology	3
BIOL 552	Biology of Lipids	3
BIOL 554	Microbial Physiology	3
BIOL 555	Medical Genetics	3
BIOL 556	Molecular Biology of Proteins	3
BIOL 557	Virology	3
BIOL 558	Microbial Genetics	3
BIOL 560	Molecular Genetics	3
BIOL 571	Physiological Plant Ecology	4
BIOL 574	Behavioral Ecology	3
BIOL 575	Avian Biology	4
BIOL 576	Biology of Extreme Habitats	3
BIOL 578	Urban Ecology	3
BIOL 579	Physiological Ecology of Animals	3
BIOL 580	Evolutionary Mechanisms	3
BIOL 586	Special Topics in Advanced Biology	3-4
BIOL 592	Graduate Colloquium	1
BIOL 593	Molecular Ecology	3
BIOL 594	Signal Transduction	3
BIOL 595	Conservation Biology: The Preservation of Biological Diversity	3
BIOL 596	Selected Techniques in Biology Science Education	1.5
BIOL 598	Selected Techniques in Molecular Biology	1.5
0-4 credits from the following may be used:		
BIOL 572	Wetland Ecology	4
BIOL 573	Shoreline Ecology	4
0-6 credits from the following may be taken with advisor approval:		
CHEM 530	Advanced Organic Chemistry	3
CHEM 532	Organic Synthesis	3
CHEM 570	Advanced Biochemistry	3
EAES 505	Environmental Geoscience	3
EAES 526	Geochemistry	3
EAES 545	Paleoecology	3
EAES 550	Advanced Marine Geology	3