

MOLECULAR 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/molecular-biology-ms/>).

Program Requirements

Code	Title	Credits
Core Courses		
BIOL 547	Molecular Biology I	3
BIOL 548	Molecular Biology II	4
BIOL 556	Molecular Biology of Proteins	3
BIOL 592	Graduate Colloquium	1
Research in Biological Literature		
BIOL 597	Research in Biological Literature	1
Electives and Culminating Activity		
<i>Concentration/Specialization Courses</i>		
Select 14 credits (if completing a thesis) - 17 credits (if completing 14-17 BIOL 599 or a Lab course) from the list below.		
<i>Culminating Activity</i>		
Select one of the following options:		3-6
Thesis		
BIOL 698	Master's Thesis	
Complete BIOL 698 for 6 credits. Submit the completed Thesis original and one copy to the Graduate Office. See Thesis Guidelines for details.		
Non-Thesis Research Option		
BIOL 599	Introduction to Biological Research	
Complete BIOL 599 for 4 credits. Present a research summary to a committee of 3 faculty members. Results are reported to the Graduate School.		
Non-Thesis Lab Option		
Complete a Laboratory Course for 3-4 credits with approval from graduate advisor.		
Present a research summary to a committee of 3 faculty members. Results are reported to the Graduate School.		
Total Credits		32

Electives

Code	Title	Credits
Biology Electives		
BIOL 505	Experimental Cell Culture	3
BIOL 512	Special Topics in Modern Genetics	3
BIOL 515	Population Genetics	3
BIOL 520	Plant Physiology	3
BIOL 533	Advanced Cell Biology	3
BIOL 535	Advanced Community Ecology	3
BIOL 540	Mammalian Physiology	3
BIOL 549	Special Topics in Developmental Biology	3
BIOL 550	Special Topics in Microbiology	3
BIOL 552	Biology of Lipids	3
BIOL 555	Medical Genetics	3
BIOL 557	Virology	3

BIOL 558	Microbial Genetics	3
BIOL 560	Molecular Genetics	3
BIOL 561	Genomics	3
BIOL 562	Special Topics in Molecular Biology	1
BIOL 563	Statistical Genomics	3
BIOL 564	Proteomics	3
BIOL 566	Bioinformatics	4
BIOL 568	Advanced Neuroscience	3
BIOL 587	Special Topics in Advanced Molecular Biology	3-4
BIOL 593	Molecular Ecology	3
BIOL 594	Signal Transduction	3
BIOL 598	Selected Techniques in Molecular Biology	1.5
Non-Departmental Approved Electives		
0-9 credits may be completed from the following:		
CHEM 570	Advanced Biochemistry	3
CHEM 575	Enzyme Kinetics and Mechanisms	3
CHEM 577	Nucleic Acid Biochemistry	3
CHEM 578	Biochemistry Laboratory Techniques	3
CHEM 579	Biomolecular Assay Development	3
CHEM 582	Biochemical Pharmacology	3