

Botany

I. Cell and Molecular Biology: BMB 280, BIO 480, or 6 credits from this area.						
Course	Credits	Semester	Lab	Animal	Plant	Capstone
BIO 336 Developmental Biology	4	Fall	X			
BIO 438 Morphogen Dev Disease	3	even Fall				X
BIO 450 Histology	4	Spring	X			X
BIO 474 Neurobiology	3	Spring, Summer		X		
BIO 480 Cell Biology	3	Spring				
BIO483 Cell Biology Lab	2	Spring	X			
BIO480 & 483 count as capstone if both are taken.						X
BMB 280 Int Molecular/Cell Bio	3	Spring				
BMB 300 General Microbiology	3	Fall				
BMB 305 General Microbiology Lab	2	Fall	X			
BMB 420 Infectious Disease	3	Spring				
BMB 421 Infectious Disease Lab	2	Spring	X			

II. Genetics and Evolution: Both courses are required.						
Course	Credits	Semester	Lab	Animal	Plant	Capstone
BIO 250 Genetics	3	Fall				
BIO 265 Evolution	3	Spring				

III. Physiology: BIO 452 is required. Students must take 3 credits from this area						
Course	Credits	Semester	Lab	Animal	Plant	Capstone
BIO 307 Interdisciplinary Neuroscience	3	Fall		X		
BIO 311 Animal Ecophysiology	3	odd Fall		X		
BIO 377 Medical Physiology	3	Fall, Summer		X		
BIO 378 Medical Physiology Lab	2	Fall	X			
BIO 452 Plant Physiology	3	Fall			X	
BIO 453 Plant Physiology Lab	1	Fall	X			
BMB 440 Intro Immunology	3	even Spring		X		
BMB 441 Intro Immunology Lab	1	even Spring	X			

IV. Biodiversity: Students must take 3 credits from this area						
Course	Credits	Semester	Lab	Animal	Plant	Capstone
BIO 226 Intro to Insect Identification	1	even Fall/Spring	X			
BIO 310 Plant Biology	4	Spring	X		X	
BIO 326 General Entomology	4	Fall	X	X		
BIO 329 Vertebrate Biology	3	Fall		X		
BIO 331 Vertebrate Biology Lab	1	Fall	X			
BIO 335 Human Anatomy	4	Spring	X	X		
BIO 342 Plants in Our World	3	even Fall			X	
BIO 353 Invertebrate Zoology	4	Spring	X	X		
BIO 430 Ecol/Syst Aquatic Insects	4	odd Fall	X	X		
BIO 432 Biology of Fungi	4	odd Fall	X		X	
BIO 433 Mammology	4	Spring	X	X		
BIO 464 Taxonomy of Vasc Plants	4	Fall	X		X	
SFR 439 Biology of Woody Plants	3	even Fall	X		X	

V. Ecology and Behavior: BIO 219, SMS 300, or 6 credits from this area.						
Course	Credits	Semester	Lab	Animal	Plant	Capstone
AVS 254 Intro to Animal Microbiomes	3	Fall		X		
BIO 205 Field Nat History of Maine	4	Fall	X			
BIO 309 Sust. & Cons. Travel Study	3	Irregular	X			
BIO 219 General Ecology	3	Spring				
BIO 354 Animal Behavior	3	Spring		X		
BIO 411 Insect Ecology	3	odd Spring		X		
BIO 429 Plant-Insect Interactions	3	odd Spring			X	
BIO 431 Emerging Infectious Disease	3	even Spring				X
BIO 434 Avian Biology and Ecology	3	odd Spring		X		
BIO 437 Avian Biology and Ecology Lab	1	odd Spring	X			
BIO 439 Integrated Pest Management	3	even Fall		X		X
BIO 443 Forest Entomology	3	even Spring		X		
BIO 455 Biological Invasions	3	even Spring				
BIO 463 River Ecology	4	even Fall	X			X
BIO 468 Lake Ecology	3	even Spring				
BIO 476 Paleocology	4	even Spring	X		X	X
EES 140 Soil Science	3	Spring				
EES 141 Soil Science Lab	1	Spring	X			
EES 475 Field Studies in Ecology	1-3	Spring	X			
PSE 457 Plant Pathology	4	Fall	X		X	
SMS 300 Marine Ecology	3	Fall				
WLE 200 Wildlife Ecology	3	Fall				
WLE 201 Wildlife Ecology Lab	3	Fall	X			

Alternate Area: These courses can be included toward the 27 credits for major.						
Course	Credits	Semester	Lab	Animal	Plant	Capstone
BIO 387 UG Research in Biology	1-6	all				
BIO 388 Research capstone	1-3	all				X
BIO 391 Indep. Study in Biology	1-6	all				
BIO 392 Independent Study Capstone	1-3	all				X
BIO 400 Biological Sciences Writing Intensive	1-2	all				
BIO 402 Capstone Experience	3	Spring				X
BIO 428 Issues in Plant Genetic Eng	3	even Spring			X	X
BMB/HON 155 Genome Discovery II	3	Spring	X			
BMB 400 Molecular Genetics	3	Fall				
BMB 402 Intro to Bioinformatics	3	Spring				
*HON 498 Honors Directed Study	3	any				
*HON 499 Honors Thesis	3	any				X

*Honors topic must be approved by Program Coordinator or Director.

BIO 122, BIO 123, BIO 208, and BIO 302 do NOT count toward major requirements

BIO 377 and BIO 474 are sometimes offered in the winter and summer terms as well.