

Cell Biology, Molecular Biology, and Biomedical Major (B.S.) (90 credits)

This is an interdisciplinary major. A minor is not required. Biol or Chem minors may not be earned with this major.

Requisites, previous, requirements in ().

Semester	Biology courses	Other required courses
YEAR #1 – FRESHMAN YEAR		
1 st semester	BIOL 181 (MATH 082 or successful placement out of) BIOL 181L (MATH 082 or successful placement out of)	CHEM 111 CHEM 111L MATH 132B
2 nd semester	BIOL 182 (CHEM 111 requisite, previous or concurrent) BIOL 182L (CHEM 111 requisite, previous or concurrent)	CHEM 112 CHEM 112L MATH 140 or 161
YEAR #2 – SOPHOMORE YEAR		
3 rd semester	BIOL 260 (BIOL 182, 182L, MATH 132B or 140 or 161) One choice from Form & Function Category: BIOL 211, 212, 213, or 232 (BIOL 182)	CHEM 230 CHEM 231 PHYS 111 or 211 PHYS 111L or 211L
4 th semester	BIOL 291 (BIOL 181; MATH 132B or 140 or 161) One choice from Form & Function Category: BIOL 211, 212, 213, or 232 (BIOL 182) BIOL 352 (BIOL 182L; 211, 212 or 213)	CHEM 330 CHEM 331 PHYS 112 or 212 PHYS 112L or 212L
YEAR #3 – JUNIOR YEAR		
5 th semester	BIOL 331 (BIOL 182L, 260) ... or... BIOL 360 (BIOL 182L, 260, CHEM 230) One choice from the Systems Category: BIOL 370 (BIOL 182L; 211 or 212 or 213) BIOL 380 (BIOL 182L, 211; Math 132B or 140 or 161) BIOL 323 (BIOL 182L, 233)	CHEM 412 CHEM 413
6 th semester	BIOL 331 (BIOL 182L, 260) ... or... BIOL 360 (BIOL 182L, 260, Chem 230) Continue or begin required electives listed below	
YEAR #4 – SENIOR YEAR		
7 th semester	BIOL 442 (BIOL 331, 360) BIOL 491 (BIOL 211, 212, 291; and BIOL 260 or 360 or 370 or 380) Continue or begin required electives listed below	
8 th semester	Complete required electives listed below	
REQUIRED ELECTIVES: A minimum of 9 credits. Many electives are offered biennially and have various requisites required; please check the catalog and plan accordingly.		
BIOL 423 Electron Microscopy, 4 cr BIOL 437 Immunology & Hematology, 4 cr BIOL 443 Bioinformatics, 3 cr BIOL 450 Advanced Studies in Genetics, 2-4 cr BIOL 451 Human Genetics, 3 cr BIOL 453 Biology of Cancer, 3 cr BIOL 455 Evolutionary Genetics, 3 cr BIOL 455L Evolutionary Genetics Lab, 1 cr		BIOL 460 Advanced Studies in Physiology, 2-5 cr BIOL 461 Endocrinology, 3 cr BIOL 461L Endocrinology Lab, 2 cr BIOL 462 Comparative Physiology, 3 cr BIOL 463 Neurobiology, 3 cr BIOL 465 Cardiovascular Physiology & Disease, 3 cr BIOL 490 Selected Topics in Molecular Biology, 1-4 cr
Additional Elective option: Only 1 credit from Biol 494 or 495 may be applied to required elective credits		
BIOL 494 Research Credit, 1 cr BIOL 495 Lab Assistant, 1 cr		

The following courses do NOT contribute toward the required electives in the major: Biol 390, 393, 491, 498, 499