

BIO SCI MAJOR WORKSHEET FOR CELL & MOL BIO OPTION (9/30/2018)



Name: _____

Date: _____

COURSE	CR	>300	OTHER SCIENCE REQUIREMENTS	CR
150 Foundations of Bio I (4 cr, Lc/Lab)			CHEMISTRY	
152 Foundations of Bio II (4 cr, Lc/Lab)			102 General Chemistry (5 cr)	
			104 General Chemistry & Qualitative Analysis (5 cr)	
GATEWAY COURSES				
315 Cell Biology (3 cr)			343 Organic Chemistry (3 cr)	
316 Laboratory in Genetics & Cell Biology (2 cr)			344 Organic Chemistry Lab (2 cr)	
325 Genetics (4 cr, Lc/Ds)			345 Organic Chemistry (3 cr)	
CAPSTONE/SENIOR RESEARCH				
672, 697 or equivalent			PHYSICS (Choose one course set)	
LAB COURSES (Choose at least 1)				
203 Anatomy & Physiology II (4 cr)			120 General Physics I (4 cr)	
372 Animal Physiology & Neurobiology Laboratory (1 cr)			121 General Physics Lab I (1 cr) OR 123 General Physics Lab II (1 cr) Recommended	
383 Microbiology (Count in next section)			122 General Physics II (4 cr)	
402 Immunological Techniques (3 cr)			Or:	
501 Plant & Aquatic Ecophysiology Laboratory (3 cr)			209 Physics I (4 cr)	
537 Industrial Microbiology and Biochemistry Laboratory (2 cr)			210 Physics II (4 cr)	
539 Laboratory Techniques in Molecular Biology (4 cr)			214 Lab Physics I (1 cr)	
543 Scanning Electron Microscopy Laboratory (2 cr)			Or:	
544 Transmission Electron Microscopy Laboratory (3 cr)			219 Physics I, Studio Format (5 cr)	
580 Experimental Microbiology (4 cr)			220 Physics II, Studio Format (5 cr)	
			RECOMMENDED MATH	
			For a complete list of Math options, see the reverse side of this sheet.	
UNDERGRAD COURSE (Choose at least 1)				
356 Developmental Biology (3 cr)			Choose at least one of the following:	
370 Animal Physiology (3 cr)			211 Survey in Calculus and Analytic Geometry (4 cr)	
383 General Microbiology (4 cr)			213 Calculus with Life Science Applications (4 cr)	
			221 Honors Calculus (5 cr)	
UNDERGRAD/GRAD COURSE (Choose at least 1)				
401 Immunology (3 cr)			231 Calculus and Analytical Geometry (4 cr)	
405 General Virology (3 cr)			And recommend one of the following:	
455 Neurobiology (3 cr)			MathStats 215 Elementary Statistical Analysis (3 cr)	
490 Molecular Genetics (3 cr)			222 Honors Calculus II (5 cr)	
498 Developmental Genetics (3 cr)			232 Calculus and Analytical Geometry (4 cr)	
500 Plant Physiology (3 cr)			Bio Sci 465 Biostatistics (3 cr)	
507 Environmental Microbiology (3 cr)			Two semesters of Calculus Recommended.	
529 Molecular Biology of Microorganisms (3 cr)				
535 Bacterial Pathogenesis (3 cr)				
536 Applied Microbiology and Biotechnology (3 cr)				
540 Microbial Diversity and Physiology (3 cr)				
545 Physiology of Reproduction (3 cr)				
542 Biological Electron Microscopy (3 cr)				
564 Endocrinology (3 cr)				
565 Eukaryotic Gene Regulation (3 cr)				
566 Cell Biology of Human Disease (3 cr)				
572 Functional Genomics (3 cr)				
573 Cellular Evolution (3 cr)				
596 Neuropharmacology (3 cr)				
597 RNA Structure, Function, & Metabolism (3 cr)				
Chem/Biochem 501 (3 cr)				
TOTAL CREDITS NEEDED IN MAJOR	34	26		

Guidelines for calculating Bio Sci major credits:

- 1) Make sure you calculate Bio Sci credits; both Major credits and >300 level credits. Independent study, UROP and internships do not count as lab courses.
- 2) Bio Sci 203 can be taken with Bio Sci 315 (Cell Bio) as a prereq, but neither it nor 202 carry credit as a >300 level course. Bio Sci 202 does not carry credit toward the Cell & Mol Bio Option of the Bio Sci degree.
- 3) Total L&S credits ≥ 300 must be ≥ 36 . Students should regularly see their L&S advisor to make sure they know and are making progress on all of the L&S requirements for their degree.
- 4) Students must have a GPA of 2.5 in all Bio Sci credits attempted (including transfer work) to graduate.
- 5) Bio Sci Major (Standard and CMB Option) requirements for Math are the same as the College's, copied below from the 2018-2019 catalog:
All candidates for the Bachelor of Science degree must complete Math 211, 213, 221, 226, 227, 228, or 231 and one additional course at the 200 level or above chosen from courses in mathematics, Philos 212 (Modern Deductive Logic), or Letters and Science statistics courses. For a list of approved statistics courses, see the College of Letters and Science website: uwm.edu/letters-science/advising/degree-requirements/major-approved-statistics-courses.
**Note that Bio Sci 465, Biostatistics is included on the list.

Tip: When students contact you for an advising appointment, suggest that they see their L&S advisor and check PAWS first. This can make your job easier, as both show the student what they need to complete their degree in Biological Sciences.