

MICROBIOLOGY MAJOR WORKSHEET FOR STANDARD OPTION (9/30/2018)



Name: _____

Date: _____

COURSE	CR	>300	OTHER SCIENCE REQUIREMENTS	CR
REQUIRED MICROBIOLOGY COURSES			CHEMISTRY	
150 Foundations of Bio I (4 cr, Lc/Lab)			102 General Chemistry (5 cr)	
152 Foundations of Bio II (4 cr, Lc/Lab)			104 General Chemistry & Qualitative Analysis (5 cr)	
325 Genetics (4 cr, Lc/Ds)			343 Organic Chemistry (3 cr)	
383 General Microbiology (4 cr, Lc/Lab)			344 Organic Chemistry Lab (2 cr)	
529 Molecular Biology of Microorganisms (3 cr)			345 Organic Chemistry (3 cr)	
540 Microbial Diversity and Physiology (3 cr)				
CAPSTONE/SENIOR RESEARCH			PHYSICS (Choose one course set)	
495, 671, 698, Honors 686, 687, 689, or equivalent			120 General Physics I (4 cr)	
			122 General Physics II (4 cr)	
			123 General Physics Lab II (1 cr)	
ELECTIVE MICROBIOLOGY COURSES			Or:	
Students MUST take EITHER Bio Sci 315 OR Chem 501 (marked with *), and MUST take EITHER Bio Sci 537 OR Bio Sci 539 OR Bio Sci 580 (marked with #).			209 Physics I (4 cr)	
			210 Physics II (4 cr)	
			215 Lab Physics II (1 cr)	
			Or:	
*315 Cell Biology (3 cr)			219 Physics I, Studio Format (5 cr)	
316 Laboratory in Genetics & Cell Biology (2 cr)			220 Physics II, Studio Format (5 cr)	
401 Immunology (3 cr)				
402 Immunological Techniques (3 cr)				
405 General Virology (3 cr)				
490 Molecular Genetics (3 cr)			MATH	
495 Internship in Biotechnology (3-6 cr)			Choose at least one of the following:	
507 Environmental Microbiology (3 cr)			211 Survey in Calculus and Analytic Geometry (4 cr)	
535 Bacterial Pathogenesis (3 cr)			221 Honors Calculus (5 cr)	
536 Applied Microbiology & Biotechnology (3 cr)			231 Calculus and Analytical Geometry (4 cr)	
#539 Laboratory Techniques in Molecular Biology (4 cr)			And choose at least one of the following:	
542 Biological Electron Microscopy (3 cr)			222 Honors Calculus II (5 cr)	
544 Transmission Electron Microscopy Laboratory (3 cr)			232 Calculus and Analytical Geometry (4 cr)	
572 Functional Genomics (3 cr)			Bio Sci 465 Biostatistics (3 cr)	
573 Cellular Evolution (3 cr)				
#580 Experimental Microbiology (4 cr)				
597 RNA Structure, Function & Metabolism (3 cr)				
671 Undergraduate Seminar in Microbiology (1 cr)				
698 Independent Study in Microbiology (1-3 cr/semester)				
*Chem 501 Introduction to Biochemistry (3 cr)				
Chem 601 Biochemistry: Protein Structure and Function (3 cr)				
BMS 534 Medical Microbiology (2 cr)				
BMS 535 Medical Microbiology Laboratory (2 cr)				
BMS 539 Public Health Microbiology (2 cr)				
BMS 540 Public Health Microbiology Laboratory (1 cr)				
TOTAL CREDITS NEEDED IN MAJOR	34	26		

Guidelines for calculating Micro 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.

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.