

BS Degree in Microbiology §

4-year plan

FALL			SPRING		
Freshman					
Chem 111	Principles of Chemistry I	4	MMBB 154	Intro to Microbiology (Sp only)	3
Math 143	Pre-calculus Algebra & Analytic Geometry (Math 108 Intermediate Algebra (3 cr) may be required first)	3	Chem 112	Principles of Chemistry II	5
Eng 102	College Writing & Rhetoric	3	Math 160 or 170	Survey of Calculus or Analytic Geometry & Calculus I	4
Core 103-149	Core Discovery (part 1 Fall)	4	Core 153-199	Core Discovery (part 2 Spring)	3
Elective	Elective	3	Elective	Elective	3
Total		17			15
Sophomore					
Phys 111 or 211	General Physics (with lab) or or Engineering Physics (with lab)	4	Chem 277	Organic Chemistry I	3
MMBB 250	General Microbiology (Fall only)	3	Chem 278	Organic Chemistry I lab	1
MMBB 255	General Microbiology lab	2	Phys 112 or 212	General Physics II (with lab) or Engineering Physics II (with lab)	4
Chem 253	Quantitative Analysis	5	Core	University Core Class (2nd in cluster)	3
Core	University Core Class (1st in cluster)	3	Eng 207 or 208 or 209 or 317	Persuasive Writing Personal and Exploratory Writing Inquiry-Based Writing Technical Writing	3
			Elective	Elective	3
Total		17			17
Junior					
MMBB 380	Introductory Biochemistry (F, Su)	4	MMBB	Microbiology group elective ¹	3
Core	University Core Class (3rd in cluster)	3	MMBB	Molecular Biology group elective ²	3
Biol 210 or Gene 314	Genetics (4 cr) or General Genetics 314 (3 cr)	4	Stat 251	Principles of Statistics	3
Chem 372	Organic Chemistry II	3	Elective	Elective	3
Elective	Elective	3	Elective	General International course	3
Total		17			15
Senior					
MMBB 400	Seminar	1	MMBB 440	Advanced Lab Techniques or	4
MMBB	Microbiology group elective ¹	3	or MMBB	Undergraduate research (with permission)	
MMBB	Molecular Biology group elective ²	3	401		
Elective	Elective	3	Elective	Elective	3
Elective	Elective	3	Elective	Elective	3
Elective	Elective	3	Elective	Elective	3
			Elective	Elective	3
Total		16			16

F = Fall, Sp = Spring, Su =summer Total for degree= 128 (16 Cr per semester average)

§ Students interested in the Medical Technology program must take MMBB 409, Immunology

¹Microbiology group elective (Two required): MMBB 409 Immunology, MMBB 412 Pathogenic Microbiology, MMBB 432 Virology, MMBB 460 Microbial Physiology, MMBB463 Molecular Parasitology, MMBB 471 Advanced Pathogenesis: Host-Pathogen Interactions

²Molecular Biology group elective (Two required): MMBB 422 Molecular Mechanisms of Disease, MMBB 450 Molecular Mechanisms in Microbiology, MMBB 475 Cell Biology, MMBB 485 Prokaryotic Molecular Biology, MMBB 487 Eukaryotic Molecular Genetics, MMBB 488 Genetic Engineering

Microbiology students also are encouraged to participate in undergraduate research (MMBB401 or 499).

Eng 102 is required of all students. English placement is based on SAT/ACT scores. Depending on scores, students may be required to take English 101 as a prerequisite.

Math 160 or 170 is required of all students. Math placement is determined by SAT/ACT scores.

Depending on scores, students may be required to take Math 108 and/or Math 143 as a prerequisite.

Chem 111 is required of all students. Chemistry placement is based on SAT/ACT scores or a Chemistry placement test. Depending on scores, students may be required to take Chem 050 as a prerequisite.

*Social Science/Humanities credits must have a minimum of 6 credits in each area. (This includes Core 101/102 and Clusters/International courses)

*The Health and Wellness Cluster includes MMBB154.