

B.S. Microbiology Four-Year Sample Curriculum 2025-2026

Requirements subject to change. See UI Catalog for complete degree requirements and additional information. Updated 3/10/25.

1 st Year – Fall Semester			1 st Year – Spring Semester		
BIOL 1010	Opportunities in Biological Sciences	1	BIOL 1150/1150L	Cells & the Evolution of Life & Lab <i>Prereq:</i> CHEM 1101 or CHEM 1111 <u>minimum 'C' required to graduate</u>	4
BIOL 1140	Organisms and Environments <u>minimum 'C' required to graduate</u>	4	CHEM 1120/1120L	Principles of Chemistry II & Lab <i>Prereq:</i> Chem 1111/1111L	5
CHEM 1111/1111L	Principles of Chemistry I & Lab <i>Prereq:</i> math test or min 'C' in CHEM 1101, MATH 1143 or 1170	4	STAT 2510 or STAT 3010	Statistical Methods or Probability & Statistics <i>Prereq:</i> MATH 1108, 1143, 1160, or 1170 or math test (SM); ^MATH 1750 (P & S)	3
MATH 1170	Analytic Geometry and Calculus I <i>Prereq:</i> math test or min 'C' in MATH 1143 and MATH 1144 (co-req possible).	4		General Education Course/Elective	3
ENGL 1102	College Writing and Rhetoric <i>Prereq:</i> ENGL 1101 or test scores	3			
Total Credits			Total Credits		
16			15		
2 nd Year – Fall Semester			2 nd Year – Spring Semester		
BIOL 2500/2550 <i>(2500 Fall only)</i>	General Microbiology & Lab <i>Prereq:</i> BIOL 1150/1150L and CHEM 1101/1101L or 1111/1111L	5		General Education Course/Elective	3
CHEM 2770/2780	Organic Chemistry I & Lab <i>Prereq:</i> CHEM 1120/1120L	4	CHEM 3720 <i>(Spring only)</i>	Organic Chemistry II <i>Prereq:</i> CHEM 2770	3
PHYS 1111/1111L or PHYS 2110/2110L	General Physics I & Lab or Engineering Physics I & Lab <i>Prereq:</i> MATH 1143 (GP); MATH 1170 (EP)	4	BIOL 3500 <i>(spring only)</i>	Microbiomes <i>Prereq:</i> BIOL 2500	3
	General Education Course/Elective	3		General Education Course/Elective	3
				General Education Course/Elective	3
Total Credits			Total Credits		
16			15		
3 rd Year – Fall Semester			3 rd Year – Spring Semester		
BIOL 3100/3150 <i>(Fall only)</i>	Genetics & Lab <i>Prereq:</i> BIOL 1150/1150L or BIOL 2500	4	BIOL 3120 <i>(Spring only)</i>	Molecular and Cellular Biology <i>Prereq:</i> BIOL 1150/1150L and BIOL 3100/3150 or GENE 3140 or BIOL 2500	3
BIOL 3800 <i>(Fall only)</i>	Biochemistry I <i>Prereq:</i> CHEM 1120/1120L and CHEM 2770	4	(see below)	Microbiology Elective	3
ENGL 2020 or 2070 or 2080 or 3170 or 3180 or 3200	Writing Course <i>Prereq:</i> ENGL 1102; Soph. stand. for 3200; Junior stand. for 3170,3180	3	(see below)	Microbiology Elective	3
	General Education Course/Elective	3		General Education Course/Elective	3
BIOL 3820	Laboratory Requirement Option	2	BIOL 3130	Laboratory Requirement Option	1
Total Credits			Total Credits		
14-16			12-13		
4 th Year – Fall Semester			4 th Year – Spring Semester		
(see below)	Microbiology Elective	3	BIOL 4000	Seminar	1
(see below)	Microbiology Elective	3	Capstone Experience	BIOL 4010 or BIOL 4070 or BIOL 4080 <i>(fall or spring)</i> or BIOL 4110 <i>(Spring only)</i>	2
	General Education Course/Elective	3	(see below)	Microbiology Elective	3
	General Education Course/Elective	3		General Education Course/Elective	3
	General Education Course/Elective	3		General Education Course/Elective	3
Total Credits			Total Credits		
15			13		

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Microbiology Electives:

Select three courses: Immunology, Pathogenic Microbiology, Virology, Microbial Physiology, Medical Parasitology, Prokaryotic Molecular Biology

Select 6 credits of the following: Ecology and population Biology, Pathophysiology, Microbial Physiology, Advanced Evolution, Immunology, Pathogenic Microbiology, Genomics, Virology, Computer Skills for Biologists, Protein Structure and Function, Prokaryotic Molecular Biology, Cellular and Molecular Basis of Disease, Veterinary & Medical Entomology, Medical Parasitology, Food Microbiology and Food Microbiology Laboratory, Mathematical Biology, Professional Ethics or Ethics in Science, Advanced Laboratory Techniques, Cell Biology, Genetic Engineering, Microbial Ecology,

Additional classes may be substituted with prior approval from advisor and chairperson.