

Degree: Biological Sciences, B.S.: Microbiology and Biomedical Lab Sciences Concentration				
Requirement Area	Course	Course Title	Prerequisites	Units
<b>First Semester</b>				
E	GS 101A	Foundations of Success I		1
A1	COMM 100	Communication		3
B4/LD Major	MATH 130	Calculus I	One from the following: Satisfactory score of 78 or higher on Mathematics Placement Exam, MATH 120 or MATH 125 (either course with grade C- or better).	4
C1				3
D1/CODE 1				3
			<b>Total:</b>	14
<b>Second Semester</b>				
E	GS 101B	Foundations of Success II		1
A2	ENGL 102	College Writing (English Composition)		3
C2				3
B2/LD Major	BIOL 140A	Principles of Cell and Molecular Biology		5
A3	PHIL 100	Workshop in Critical Thinking		3
			<b>Total:</b>	15
<b>Third Semester</b>				
E				1
LD Major	BIOL 140B	Principles of Organismal Biology	BIOL 140A with grade C- or better.	5
D2				3
B1/LD Major	CHEM 111	General Chemistry I		5
			<b>Total:</b>	14
<b>Fourth Semester</b>				
Add'l C1 or C2*				3
Writing II/WID (2nd)	ENGL 200 or PHYS 230			3
B3/LD Major	CHEM 112	General Chemistry II	CHEM 111 with grade C- or better.	5
UD Major	BIOL 310	Genetic Analysis I	BIOL 140A.	4
			<b>Total:</b>	15
<b>Fifth Semester</b>				
D3				3
LD Major	PHYS 125	Principles of Physics I	Satisfactory score of 78 or higher on	4
UD Major	BIOL 330	General Microbiology		5
UD Major	CHEM 331	Organic Chemistry I	CHEM 112 with grade C- or better.	5
			<b>Total:</b>	17
<b>Sixth Semester</b>				
UD Major/Elective 1	BIOL			3
LD Major	PHYS 126	Principles of Physics II	PHYS 125.	4
UD Major	CHEM 332	Organic Chemistry II		5
Code 2				3
			<b>Total:</b>	15
<b>Seventh Semester</b>				
UD Major	CHEM 340	Survey of Biochemistry	CHEM 230 or CHEM 332, both with grade	3
UD Major	BIOL 320	Evolutionary Biology	BIOL 310.	3
UD Major/Elective 2				3
UD Major Elective 3				3
B6/Overlay			Completion of GE areas A1, A2, A3 and B4.	3
			<b>Total:</b>	15
<b>Eighth Semester</b>				
C4/Overlay			Completion of GE areas A1, A2, A3 and B4.	3
D4/Overlay			Completion of GE areas A1, A2, A3 and B4.	3
UD Major/Elective 4				3
UD Major/Elective 5				4
UD Major/Capstone	BIOL 430	Microbial Physiology and Biochemistry	BIOL 330, and CHEM 340 or CHEM 441.	3
			<b>Total:</b>	15
<b>Total Units:</b>				120

General Education & University Requirements - Suggested Courses	
Area A (9 units): Communication in the English Language & Critical Thinking (Must earn passing grade of C-/CR or better)	
<input type="checkbox"/> A1. COMM 100 or 104	
<input type="checkbox"/> A2. ENGL 101, 102, or 104	
<input type="checkbox"/> A3. PHIL 100	
Area B (9 units): Scientific Inquiry & Quantitative Reasoning	
<input type="checkbox"/> B1. Physical Science	
<input type="checkbox"/> B2. Life Science	
<input type="checkbox"/> B3. Laboratory Activity	
<input type="checkbox"/> B4. Quantitative Reasoning (Must earn passing grade of C-/CR or better.)	
Area C (9 units): Arts & Humanities - Minimum of three different disciplines as designated by course prefix (e.g., ART, THEA, MUS)	
<input type="checkbox"/> C1. Arts	
<input type="checkbox"/> C2. Humanities	
<input type="checkbox"/> *Additional Lower-division Area C Course in Arts (C1) or Humanities (C2)	
Area D (9 units): Social Sciences - Minimum of three different disciplines as designated by course prefix (e.g., ANTH, ECON, POSC)	
<input type="checkbox"/> D1.	
<input type="checkbox"/> D2.	
<input type="checkbox"/> D3.	
Area E (3 units): Lifelong Learning and Self-Development	
<input type="checkbox"/> E.	
Second Composition: Requires completion of GE A2 with a C-/CR or	
<input type="checkbox"/> Writing II.	
University Writing Skills Requirement	
<input type="checkbox"/> UWSR. Writing Skills Test (WST) or First and/or Second Tier Courses	
U.S. Code (American Institutions Requirement) - Two courses (6 units)	
<input type="checkbox"/> Code 1.	
<input type="checkbox"/> Code 2.	
Upper Division GE Requirements (9 units): Should be taken after	
<input type="checkbox"/> B6. Upper-division Science Inquiry and Quantitative Reasoning	
<input type="checkbox"/> C4. Upper-division Arts OR Humanities	
<input type="checkbox"/> D4. Upper-division Social Sciences	
Overlay Requirements (9 units): Courses may be upper or lower division,	
<input type="checkbox"/> Diversity (Div)	
<input type="checkbox"/> Social Justice (SJ)	
<input type="checkbox"/> Sustainability (S)	