

# B.S. Biochemistry 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 <sup>st</sup> Year – Fall Semester			1 <sup>st</sup> 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	MATH 1750	Analytic Geometry and Calculus II <i>Prereq:</i> min 'C' in MATH 170	4
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			
<b>Total Credits</b>			<b>Total Credits</b>		
<b>16</b>			<b>16</b>		
2 <sup>nd</sup> Year – Fall Semester			2 <sup>nd</sup> Year – Spring Semester		
CHEM 2530/2540 <i>(2530 Fall only)</i>	Quantitative Analysis & Lab <i>Prereq:</i> CHEM 1120/1120L	5	STAT 2510 or *STAT 3010	Statistical Methods or Probability & Statistics <i>Prereq:</i> MATH 1108, 1143, 1160, or 1170; MATH 1750 for STATS 3010	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 2110/2110L	Engineering Physics I & Lab <i>Prereq:</i> MATH 1170	4	PHYS 2120/2120L	Engineering Physics II & Lab <i>Prereq:</i> PHYS 2110/2110L and MATH 1750	4
	General Education Course/Elective	3		General Education Course/Elective	3
				Elective as needed** (see below)	3
<b>Total Credits</b>			<b>Total Credits</b>		
<b>16</b>			<b>16</b>		
3 <sup>rd</sup> Year – Fall Semester			3 <sup>rd</sup> Year – Spring Semester		
BIOL 3100/3150 <i>(Fall only)</i>	Genetics & Lab <i>Prereq:</i> BIOL 1150/1150L or BIOL 2500	4	BIOL 3120/3130 <i>(Spring only)</i>	Molecular and Cellular Biology & Lab <i>Prereq:</i> BIOL 1150/1150L and BIOL 3100/3150 or GENE 3140 or BIOL 2500	4
BIOL 3800/3820 <i>(Fall only)</i>	Biochemistry I <i>Prereq:</i> CHEM 1120/1120L and CHEM 2770	6	BIOL 4540 <i>(Spring only)</i>	Biochemistry II <i>Prereq:</i> CHEM 3720; BIOL 3800 or CHEM 3020 or 3060	3
ENGL 2020 or 2070 or 2080 or 3170 or 3180 or 3200	Writing <i>Prereq:</i> ENGL 1102; 2020, Soph. stand.; 3170, 3180, Junior stand.	3		General Education Course/Elective	3
				General Education Course/Elective	3
				General Education Course/Elective	3
<b>Total Credits</b>			<b>Total Credits</b>		
<b>13</b>			<b>16</b>		
4 <sup>th</sup> Year – Fall Semester			4 <sup>th</sup> Year – Spring Semester		
*see below	Biochemistry Elective	3	BIOL 4000	Seminar	1
CHEM 3020 or **CHEM 3050 <i>(both Fall only) or PHYS 4380</i>	Principles of Physical Chemistry or Physical Chemistry or Biological Physics <i>Prereq:</i> CHEM 1120, MATH 1170 or 1750 and PHYS 11/11L (PPC); CHEM 1120/1120L, MATH 2750 and PHYS 2120 (PC); PHYS 2120 or 2130; Jr or Sr standing (BP)	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	Biochemistry Elective	3
	General Education Course/Elective	3		General Education Course/Elective	3
	General Education Course/Elective	3		General Education Course/Elective	3
<b>Total Credits</b>			<b>Total Credits</b>		
<b>15</b>			<b>12</b>		

\*STAT 301 not required but encouraged

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**\*Biochemistry Electives:** Immunology, Genomics, Neurobiology, Protein Structure and Function, Prokaryotic Molecular Biology, Cellular and Molecular Basis of Disease, Organic Chemistry II Lab, Medicinal Chemistry, Intermediate Organic Chemistry, Genetic Engineering, Bioremediation, Systems Biology, Principles of Physical Chemistry, Physical Chemistry, Physical Chemistry II; Advanced Laboratory Techniques

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