



# Biological Chemistry Major



Science & Technology Department



The biological chemistry major was designed to be an interdisciplinary major for biology or chemistry students that seek further graduate training in a biological or medical setting. This major provides chemistry or biology students a program with a greater research emphasis. The major represents a solid first step for students who plan to enter graduate school to study molecular biology, biochemistry, or other programs in life or chemical sciences. **A major in biological chemistry is also a perfect fit for students looking toward careers in medicine, pharmacy, veterinary sciences, or dentistry.**

<b>FIRST YEAR</b>										
<b>First Semester</b>					<b>Second Semester</b>					
			<b>Credits</b>					<b>Credits</b>		
BIOL	200 <sup>m</sup>	Biological Science	4	BIOL	201 <sup>m</sup>	Survey of Biology I		4		
CHEM	111 <sup>m</sup>	General Chemistry I	5	CHEM	112 <sup>m</sup>	General Chemistry II		5		
BIBL	111 <sup>g</sup>	Essential Christianity	3	ENGL	111 <sup>g</sup>	Composition (or ENGL 211)		3		
MATH	231 <sup>m</sup>	Calculus I	4	BIBL	115 <sup>g</sup>	Old Testament Lit. (or MATH 232)		<u>3-4</u>		
GSCI	100 <sup>m</sup>	Freshman Seminar	<u>1</u>					Total	15-16	
		Total	17							
<b>SUMMER</b>										
CPSC	101 <sup>m</sup>	Introduction to Personal Computers (waiver exam or online course)							3 credits	
<b>SECOND YEAR</b>										
<b>Third Semester</b>					<b>Fourth Semester</b>					
			<b>Credits</b>					<b>Credits</b>		
PHYS	211 <sup>m</sup>	General Physics I	5	PHYS	212 <sup>m</sup>	General Physics II		5		
CHEM	271 <sup>m</sup>	Organic Chemistry I	4	CHEM	272 <sup>m</sup>	Organic Chemistry II		4		
CHEM	278 <sup>m</sup>	Organic Chemistry Anal/Meth	1	CHEM	279 <sup>m</sup>	Organic Chemistry Anal/Meth		1		
BIBL	116 <sup>g</sup>	New Testament Literature	3	BIOL	335 <sup>m</sup>	Microbiology		4		
MATH	210 <sup>g</sup>	Elementary Statistics	<u>3</u>	BCHM	296 <sup>m</sup>	Scientific Writing & Careers		<u>1</u>		
		Total	16					Total	15	
<b>THIRD YEAR</b>										
<b>Fifth Semester</b>					<b>Sixth Semester</b>					
			<b>Credits</b>					<b>Credits</b>		
BIOL	311 <sup>c</sup>	Human A & P (or Elective)	4	BIOL	312 <sup>c</sup>	Human A & P (or Elective)		4		
CHEM	375 <sup>m</sup>	Biochemistry	4	BCHM	493 <sup>m</sup>	Research Topic (REU)		2		
CHEM	431 <sup>m</sup>	Physical Chemistry (or CHEM 331)	4	PHED	112 <sup>g</sup>	Lifetime Fitness		1		
THEO	216 <sup>g</sup>	Introduction to Theology	3	PHED	1xx <sup>g</sup>	Elective		1		
Humanities <sup>g</sup>		Appreciation	<u>2</u>	BIOL	437 <sup>m</sup>	Cell Biology		3		
		Total	17	ENGL	123 <sup>g</sup>	Introduction to Literature		3		
						Social Science <sup>g</sup> Elective		<u>3</u>		
								Total	17	
<b>FOURTH YEAR</b>										
<b>Seventh Semester</b>					<b>Eighth Semester</b>					
			<b>Credits</b>					<b>Credits</b>		
BCHM	496 <sup>m</sup>	Seminar	1	THEO	422 <sup>g</sup>	Christianity at Work		3		
		Bioethics or Humanities Elective	3	BCHM	496 <sup>m</sup>	Research Presentation		1		
BIBL	3xx <sup>g</sup>	Book Study	3	BIOL	338 <sup>c</sup>	Genetics (or BIOL/CHEM Elective)		4		
GOVT	170 <sup>g</sup>	or HIST 111	3			Humanities <sup>g</sup> Elective		3		
PSYC	112 <sup>g</sup>	Psychology (or SOCI 111)	3			Social Science <sup>g</sup> Elective		<u>3</u>		
BIOL/CHEM		Upper Division Elective	<u>4</u>					Total	14	
		Total	17							

<sup>a</sup> The chemistry elective(s) may be delayed until the 7<sup>th</sup> semester; especially for medical/pharmacy students preparing for MCAT/PCAT.

<sup>b</sup> Those planning to attend medical school or pharmacy school should consider taking the MCAT/PCAT at this time. Many students elect to take a reduced academic load this semester to give more time for test preparations.

<sup>c</sup> BIOL 311, 312 and 338 are required for most medical schools, but are not required for the biological chemistry major. Some pre-med students may be advised to take BIOL 298 – Medical Practicum.

<sup>m</sup> Required for the Biological Chemistry major.

<sup>g</sup> Required for the Evangel general education requirement.