

# Chemistry BS ACS Biochemistry Option Degree Checklist

Effective Fall 2023

<b>Required Chemistry, Math, Biology, and Physics (76 credits)</b>			
<b>Required Courses (60 credits)</b>	<b>Credits</b>	<b>Grade</b>	<b>Semester/Year</b>
MATH160 Calculus 1	4		
MATH170 Calculus 2	4		
PHYS211 General Physics 1	4		
PHYS212 General Physics 2	4		
CHEM121 General Chemistry 1	4		
CHEM122 General Chemistry 2	4		
CHEM281 Organic Chemistry 1	4		
CHEM282 Organic Chemistry 2	4		
CHEM261 Inorganic Chemistry	4		
CHEM341 Analytical Chemistry (Quantitative Analysis)	4		
CHEM361 Physical Chemistry 1	4		
CHEM351 Biochemistry 1	4		
CHEM452 Biochemistry 2	4		
BIOL110 Principles in Biology 1	4		
BIOL209 Genetics	3		
BIOL210 Genetics Lab	1		
<b>Elective Chemistry (12 credits required)</b>			
<b>Category A (Choose 1 credit)</b>			
CHEM492 Chemistry Research 1	1		
CHEM498 Chemistry Internship	1		
<b>Category B (8 Credits)</b>			
CHEM442 Instrumental Analysis	4		
CHEM472 Physical Chemistry 2 (Quantum & Spect.)	4		
CHEM462 Advanced Inorganic Chemistry	4		
<b>Category C (6 Credits)</b>			
BIOL211 Cell Biology	4		
BIOL337 Basic Virology	3		
BIOL340 Microbiology	4		
BIOL350 Plant Physiology	3		

<b>BIOL411 Radiation Biology</b>	<b>3</b>		
<b>BIOL430 Evolution</b>	<b>3</b>		
<b>BIOL431 Mycology</b>	<b>3</b>		
<b>BIOL442 Advanced Virology</b>	<b>3</b>		
<b>BIOL443 Molecular Biology</b>	<b>3</b>		
<b>BIOL444 Molecular Biology Lab</b>	<b>1</b>		
<b>BIOL445 Pharmacology</b>	<b>3</b>		
<b>BIOL 446 Immunology</b>	<b>3</b>		
<b>BIOL 450 Developmental Biology</b>	<b>3</b>		
<b>BIOL 462 Cancer Biology</b>	<b>3</b>		
<b>BIOL 465 Medical Genomics</b>	<b>3</b>		
<b>BIOL 466 Bioinformatics</b>	<b>3</b>		
<b>BIOL 474 Human Physiology</b>	<b>3</b>		
<b>BIOL 475 Animal Cell Physiology</b>	<b>3</b>		
<b>BIOL 476 Neurophysiology</b>	<b>3</b>		
<b>BIOL 477 Plant Physiology</b>	<b>3</b>		
<b>BIOL 489 Special Topics in Biology</b>	<b>3</b>		

General Education

Category	Credits	Course Taken (Required classes are listed)	Semester/Grade
First Year Seminar (U)	3		
Writing (W) (3 credits)	3		
Oral Communication (O)	3		
History (H)	3		
Quantitative (Q)	4	MATH160 Calculus 1	
Diversity (D)	3		
Global Perspective (G)	3		
Diversity (D) Foreign Languages (F) or Global Perspective (G) Course	3		
Ethical Reasoning (E)	3		
Critical Reasoning (R)	4		
Natural World & Tech (N/T)	4	CHEM121 General Chemistry 1	
Natural World & Tech (N/T)	4	CHEM122 General Chemistry 2	
Natural World & Tech (N/T)	3	PHYS211 General Physics 1	
Literature (L)	3		

Arts (A) or Creative (C)	3		
Total General Education Credits	48		

**Students need a minimum of 120 credits to graduate from Commonwealth University**

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