

Bloomsburg University - Department of Chemistry
Bachelor of Science in Chemistry-ACS Certified Biochemistry Option

Courses (prerequisites)	Sem/ Grade	Courses	Sem/ Grade
	Cr		Cr
Chemistry Courses – 51-53 credits		General Education - 50 credits total	
52.115 Chemistry for the Sciences I	4	Communication - 9 credits	
52.116 Chemistry for the Sciences II (115)	4	20.101 Composition 1	3
52.231 Organic Chemistry I ² (116)	4	09.231 Technical Writing	3
52.232 Organic Chemistry II ¹ (231)	4	Communications Course (25.103 Public Speaking ³)	3
52.251 Inorganic Chemistry ¹ (116)	3		
52.281 Introduction to Scientific Literature ¹	1	Quantitative - 3 credits	
52.321 Analytical Chemistry ² (116)	3	(Requirement met with 53.125)	
52.322 Instrumental Analytical Chemistry ¹ (321, 361)	4	Values - 3 credits - may be met w/approp. Gr. A or B	
52.341 Biochemistry I (116, 231, 232)	4		3
52.361 Physical Chemistry I ² (116, 54.212, 53.225)	4		
52.362 Physical Chemistry II ¹ (361)	4	Fitness - 2 credits	
52.452 Advanced Inorganic Chemistry ² (362)	4		1
52.442 Biochemistry II ¹ (341)	4		1
52.492 Chemical Research ³	1 to 3		
52.493 Chemical Research II ³	3	Diversity - 6 credits - may be met w/approp. Gr. A or B	
			3
			3
Math Courses – 9 credits		Group A (Humanities) - 12 credits	
53.125 Calculus 1	3	28.270 Logic ³	3
53.126 Calculus 2 (125)	3		3
53.225 Calculus 3 (126)	3		3
			3
Physics Courses – 8 credits		Group B (Social Sciences) - 12 credits	
54.211 Gen Physics I	4		3
54.212 Gen Physics II (211, 53.125 concurrent)	4		
			3
Required Biology Courses - 8 credits			
50.242 Biology of Microorganisms	4		3
50.271 Cell Biology	4		3
			3
Biology Course Electives (choose one: 3 credits)		Group C (Nat. Sci. & Math) - 12 credits	
50.332 Genetics, 50.343 Immunology	3	All requirements met with required science and math courses	
<i>other upper level Biology courses may be considered with prior approval by the Chemistry Department</i>			

**Suggested Course Sequence for
Bachelor of Sciences in Chemistry-ACS Certified Biochemistry Option**

YEAR	FALL	SPRING
1st	52.115 Chemistry for the Sciences I 53.125 Calculus 1 Group A (Humanities, 28.270 Logic ³) 1 of 4 Communications Course (25.103 Public Speaking ³) 09.100 University Seminar Group B (Social Sciences) 1 of 4/Diversity 1 of 2	4 3 3 3 1 3
		52.116 Chemistry for the Sciences II 53.126 Calculus 2 20.101 Composition 1 Group B (Social Sciences) 2 of 4 50.271 Cell Biology
		4 3 3 3 4
	17	17
2nd	52.231 Organic Chemistry I ² 53.225 Calculus 3 54.211 Gen Physics I Group A (Humanities) 2 of 4/Diversity 2 of 2 09.231 Technical Writing	4 3 4 3 3
		52.232 Organic Chemistry II ¹ 52.251 Inorganic Chemistry ¹ 52.281 Introduction to Scientific Literature ¹ 54.212 Gen Physics II Group B (Social Sciences) 3 of 4
		4 3 1 4 3
	17	15
3rd	52.341 Biochemistry I 52.361 Physical Chemistry I ² Fitness 1 of 2 Biology Elective Group B (Social Sciences) 4 of 4	4 4 1 3 3
		52.442 Biochemistry II ¹ 52.362 Physical Chemistry II ¹ Fitness 2 of 2 50.242 Biology of Microorganisms Group A (Humanities) 3 of 4
		4 4 1 4 3
	15	16
4th	52.321 Analytical Chemistry ² (116) 52.452 Advanced Inorganic Chemistry ² (362) 52.492 Chemical Research ³ Free Elective <i>Add more electives for financial aid if needed.</i>	3 4 1 3
		52.322 Instrumental Analytical Chemistry ¹ (321, 362) 52.493 Chemical Research II ³ Group A (Humanities) 4 of 4 Values, Ethic and Decision Making <i>Add more electives for financial aid if needed.</i>
		4 3 3 3
	11	13

All students must fulfill the General Education Requirements as outlined in the Pilot.

**Total credits = 121
Excluding Seminar = 120**

Humanity, Social Sciences, Communication, Diversity, Values/Eth/Resp. electives may be interchanged with respect to when taken.

Optimizing Opportunities for the Chemistry Major that is Pre-Graduate School:

1. If you are considering or have decided to follow this path, inform your advisor.
2. Be an active member of the Chem Club.
3. Strong writing skills are required to write entrance essays. Never pass-up an opportunity to write!
4. Being well-read is important for good performance on the GRE. Read Time, Newsweek, etc. frequently.
5. Make a strong effort in research.

Example "outside-the-box" courses that provide reading, writing, and vocabulary-building opportunities: (and serve as Group A or Group B or electives)

20.152 Literature and Society	45.211 Principles of Sociology
20.204 Intro. Creative Writing	45.213 Contemporary Social Problems
20.212 Pract. Grammar and Usage	45.231 Marriage and Family
27.110 Mass Comm and Pop Arts	70.101 Intro. Exceptional Individuals
28.297 Ethics	98.407 International Legal Environment