

**Bloomsburg University - Department of Chemistry**  
**Bachelor of Science in Chemistry Biochemistry Option for Pre-Professionals**

Courses (prerequisites)	Sem. Taken	Cr	Courses	Sem. Taken	Cr
<b>Chemistry Courses – 35 credits</b>			<b>General Education - 50 credits total</b>		
52.115 Chemistry for the Sciences I		4	<b>Communication - 9 credits</b>		
52.116 Chemistry for the Sciences II (115)		4	20.101 Composition 1		3
52.231 Organic Chemistry I <sup>2</sup> (116)		4	20.201 Composition 2 (or advanced writing course <sup>3</sup> )		3
52.232 Organic Chemistry II <sup>1</sup> (231)		4	Communications Course (25.104 Interpers. Comm. <sup>3</sup> )		3
52.251 Inorganic Chemistry <sup>1</sup>		3			
52.281 Introduction to Scientific Literature <sup>1</sup>		1	<b>Quantitative - 3 credits</b>		
52.321 Analytical Chemistry <sup>2</sup> (116)		3	(Requirement met with 53.125)		
52.341 Biochemistry I (116, 231, 232)		4	<b>Values - 3 credits - may be met w/approp. Gr. A or B</b>		
52.361 Physical Chemistry I <sup>2</sup> (116, 54.212, 53.225)		4			
52.442 Biochemistry II <sup>1</sup> (341)		4			3
<b>Restricted Electives - 6-8 Credits</b>			<b>Fitness - 2 credits</b>		
52.322 Instru. Analytical <sup>1</sup> or 52.333 Adv. Organic <sup>1</sup> or 52.362 P.					1
Chem II <sup>1</sup> or 52.371 Intro Polymer <sup>1</sup> or 52.452 Adv. Inorg. <sup>2</sup> or 52.482					1
Adv. Topics <sup>1</sup> or 52.492 Research I <sup>3</sup>					
<b>Math Courses – 9 credits</b>			<b>Diversity - 6 credits - may be met w/approp. Gr. A or B</b>		
53.125 Calculus 1		3			3
53.126 Calculus 2 (125)		3			3
53.225 Calculus 3 (126)		3	<b>Group A (Humanities) - 12 credits</b>		
<b>Physics Courses – 8 credits</b>			28.270 Logic (recommended) <sup>3</sup>		3
54.211 Gen Physics I		4			3
54.212 Gen Physics II (211, 53.125 concurrent)		4			3
<b>Required Biology Courses - 8 credits</b>			<b>Group B (Social Sciences) - 12 credits</b>		
50.242 Biology of Microorganisms		4			3
50.271 Cell Biology		4			3
<b>Biology Course Electives (choose one: 3 credits)</b>					3
50.332 Genetics <sup>3</sup> , 50.343 Immunology		3	<b>Group C (Nat. Sci. &amp; Math) - 12 credits</b>		
<i>other upper level Biology courses may be considered</i>			All requirements met with required science and math courses		
<i>with prior approval by the Chemistry Department</i>					

## Suggested Course Sequence for Bachelor of Sciences in Chemistry-Biochemistry Option for Pre-Professionals

YEAR	FALL	SPRING		
<b>1st</b>	52.115 Chemistry for the Sciences I	4	52.116 Chemistry for the Sciences II	4
	53.113 Pre-Calculus	3	53.125 Calculus 1	3
	Group A (Humanities, 28.270 Logic <sup>3</sup> ) 1 of 4	3	20.101 Composition 1	3
	Communications Course (25.103 Public Speaking <sup>3</sup> )	3	Group B (Social Sciences) 2 of 4	3
	09.100 University Seminar	1	50.271 Cell Biology	4
	Group B (Social Sciences) 1 of 4/Diversity 1 of 2	3		
	<b>17</b>		<b>17</b>	
<b>2nd</b>	52.231 Organic Chemistry I <sup>2</sup>	4	52.232 Organic Chemistry II <sup>1</sup>	4
	53.126 Calculus 2	3	52.251 Inorganic Chemistry <sup>1</sup>	3
	54.211 Gen Physics I	4	52.281 Introduction to Scientific Literature <sup>1</sup>	1
	Group A (Humanities) 2 of 4/Diversity 2 of 2	3	54.212 Gen Physics II	4
	09.231 Technical Writing	3	53.225 Calculus 3	3
	<b>17</b>		<b>15</b>	
<b>3rd</b>	52.341 Biochemistry I	4	52.442 Biochemistry II <sup>1</sup>	4
	52.361 Physical Chemistry I <sup>2</sup>	4	Chemistry Elective 1 of 2	3
	Fitness 1 of 2	1	Fitness 2 of 2	1
	Biology Elective	3	50.242 Biology of Microorganisms	4
	Group B (Social Sciences) 4 of 4	3	Group A (Humanities) 3 of 4	3
	<b>15</b>		<b>15</b>	
<b>4th</b>	52.321 Analytical Chemistry <sup>2</sup> (116)	3	Free Elective	3
	Chemistry Elective 2 of 2	4	Group A (Humanities) 4 of 4	3
	Free Elective	3	Values, Ethic and Decision Making	3
	Free Elective	3		
	Group B (Social Sciences) 3 of 4	3		
	<b>16</b>		<b>9</b>	

**All students must fulfill the General Education Requirements as outlined in university policy.**

**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-Professional: (-Medical, -Dental, -Podiatry, -Veterinary, -Optometry, -Pharmacy)

1. If you are considering or have decided to follow this path, inform your advisor and Dr. Hallen or Dr. Bell.
2. Requirements for professional school can vary to some extent, so contact schools of interest EARLY.
3. Be an active member of the Pre-Professional Club and the Pre-Pro/Pre-Grad Community on Blackboard.
4. Strong writing skills are required to perform well on admissions examinations. Never pass-up an opportunity to write!
5. Being well-read is also required. Read Time, Newsweek, U.S. News & World Report, etc. frequently.

*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

A well-rounded education is important for admission to ALL professional schools. **Do not over-focus on science!**  
Consider courses in Sociology, Philosophy, Religion, Spanish, Literature, Business, Geography, Anthropology, History, etc.