

# BA: Chemistry — Biochemistry Option, Non-ACS approved (120 S.H. required to complete the degree)



Name: \_\_\_\_\_ Adviser: \_\_\_\_\_

## General Education Requirements (44 S.H.)

<b>COMMUNICATION SKILLS (3 S.H.)</b> Choose one of the following: COM 160 Public Speaking, COM 161 Decision Making in Groups, COM 162 Interpersonal Communication <b>or</b> COM 163 Introduction to Communication Skills		
COM:	3	
<b>WRITING INTENSIVE (W)</b> All students must complete at least one writing intensive course. W courses can be found in several disciplines. The credits will be counted in the discipline associated with the course. <i>NOTE: WRT101 does not satisfy the writing intensive requirement.</i>		
Course:	Y/N	
<b>FOREIGN LANGUAGE</b> All chemistry majors must complete a foreign language requirement. This may be done by completing a language at an elementary II level or above. Students who have completed three years of language in high school with at least a C average have satisfied this requirement. (For more info, click the link above.)		
Foreign Language Requirement Met?	Y / N	
<b>HUMANITIES (15 S.H.)</b> Humanities courses can be found in Art, Communication, English, Foreign Languages, History, Humanistic Studies, Music, Philosophy, Theatre and Writing. Students may only use one studio course to satisfy this requirement. You must complete courses in at least 3 areas. <i>NOTE: You must complete the foreign language requirement (Elementary II or higher) before counting Elementary I foreign language courses as Humanities credit.</i>		
Elective:	3	
<b>SOCIAL AND BEHAVIORAL SCIENCES (12 S.H.)</b> Courses that satisfy this requirement can be found in Social Sciences (Anthropology, Economics, Political Science, Social Sciences, and Sociology), Non-Western Cultures, and Psychology. <i>You must select courses from at least 2 of the 3 main areas: Social Sciences, Psychology and Non-Western Cultures.</i>		
Elective:	3	
<b>NATURAL SCIENCES, MATHEMATICS &amp; COMPUTER SCIENCE (12 S.H.) *</b> Students must complete the courses specified in this category.		
PHY 110 General Physic I	4	
PHY 111 General Physics II	4	
MAT 181 Calculus I (MAT 170 and 171 sequence will also satisfy this requirement)	4	
<b>HEALTH PROMOTION AND EXERCISE SCIENCES (2 S.H.)</b>		
HPX 177 Fitness for Life — Lecture	1	
HPX 177 Fitness for Life — Activity	1	

\*Chemistry majors are required to take the math and Science courses specified above for the general education requirements. This means that your general education semester hour total is 44 instead of the average 42.

## Major Requirements (63-67 S.H.)

CHE 110 General Chemistry I	4	
CHE 111 General Chemistry II	4	
CHE 205 Analytical Chemistry Lecture	3	
CHE 206 Analytical Chemistry Lab	2	
CHE 210 Organic Chemistry I (Fall)	4	
CHE 211 Organic Chemistry II (Spring)	4	
CHE 300 Physical Chemistry I (Fall)	4	
CHE 301 Physical Chemistry II (Spring)	4	
CHE 421 Biochemistry Lecture I (Fall)	3	
CHE 422 Biochemistry Lecture II (Spring)	3	
CHE 431 Biochemistry Lab (Spring)	2	
CHE 311 Inorganic Chemistry (Alternate fall semesters)	4	
CHE 250 Chemistry Seminar	.5	
CHE 250 Chemistry Seminar	.5	
CHE 250 Chemistry Seminar (optional)	.5	
CHE 250 Chemistry Seminar (optional)	.5	
MAT 182 Calculus II	4	
BIO103 General Biology I	4	
BIO104 General Biology II	4	
CHE297 Cooperative Education Research (12 S.H.) or CHE 430 Senior Research and choice of one advanced elective (see suggested list).	8-12	
Senior Presentation Required?	Y / N	
<b>FREE ELECTIVES (9-13 S.H.)</b>		
Elective:		

Free electives offer an opportunity to complete a minor, study a second language, study abroad, or participate in an internship. **Make a plan.**

**NOTES**

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## Four-Year Plan This is a sample sequence of courses. Other combinations are possible.



Pre-requisites are in parentheses; see catalog for details.

Class standing by credit: Freshman: 0-29 credits; Sophomore: 30-59 credits; Junior: 60-89 credits; Senior: 90+ credits

FIRST YEAR (30 S.H.)	SEMESTER 1 (15 S.H.)			SEMESTER 2 (15 S.H.)		
	CHE 110 General Chemistry I (Placement test or $\geq$ B in CHE 100)	4		CHE 111 General Chemistry II (CHE 110)	4	
	BIO 103 General Biology I (MAT and WRT 098, or placement test)	4		BIO 104 General Biology II ( $\geq$ C in BIO 103)	4	
	MAT 181 Calculus I (MAT 133 or appropriate placement)	4		MAT 182 Calculus 182 (MAT 181)	4	
	WRT 101 Composition I: Habit of Writing or Writing Intensive	3		Writing Intensive or Gen Ed Humanities	3	

SECOND YEAR (31.5 S.H.)	SEMESTER 3 (14.5 S.H.)			SEMESTER 4 (17 S.H.)		
	CHEM 210 Organic Chemistry (CHE 110 & 111)	4		CHEM 211 Organic Chemistry (CHE 210)	4	
	PHY 110 General Physics (CALC 182 & PHY103 or appropriate placement)	4		PHY 111 General Physics II (PHY110)	4	
	CHE 205 Analytical Chemistry Lecture (CHE 111)	3		Gen Ed: Social & Behavioral Sciences	3	
	CHE 206 Analytical Chemistry Lab (CHE 111)	2		Gen Ed: Social & Behavioral Sciences	3	
Gen Ed: Humanities (Foreign Language, if required)	3		Gen Ed: Humanities (Foreign Language, if required)	3		

THIRD YEAR (30.5-31.5 S.H.)	SEMESTER 5 (16 S.H.)			SEMESTER 6 (14.5 – 15.5 S.H.)		
	CHE 205 Analytical Chemistry Lecture (CHE 111)	3		CHE 250 Chemistry Seminar	.5	
	CHE 206 Analytical Chemistry Lab (CHE 111)	2		CHE 422 Biochemistry Lecture II (CHE 421 of equivalent)	3	
	CHE 421 Biochemistry Lecture I (CHE 211 or equivalent)	3		CHE 431 Biochemistry Lab (CHE 205, 206, 211, and 421, corequisite CHE 422)	2	
	Gen Ed: Social & Behavioral Sciences	3		Free Elective or (option with CHE 430) BIO/CHE Elective (from approved list)	3 – 4	
	Free Elective	3		Gen Ed: Social & Behavioral Sciences	3	
	HPX 177 Fitness for Life (Lecture & Activity)	2		Gen Ed: Humanities	3	
Complete a degree audit and plan for application for graduation						

FOURTH YEAR (34 S.H.)	SEMESTER 7 (16.5 S.H.)			SEMESTER 8 (13.5 – 14.5 S.H.)		
	CHE 300 Physical Chemistry I (CHE 205, 26, 211, MAT 182 and PHY 111)	4		CHE 301 Physical Chemistry II (CHE 300)	4	
	CHE 297 Cooperative Education in Chemistry (or choice of CHE 430 with the advanced elective )	12		CHE 250 Chemistry Seminar (optional)	.5	
	CHE 250 Chemistry Seminar (optional)	.5		Gen Ed: Humanities	3	
	Free Elective			Gen Ed: Humanities or Free Elective	3	
	Free Elective			(if chosen) CHE 430 Senior Research & Presentation (CHE 300)		
	Free Elective			Free Elective	3 – 4	
			Senior Presentation	Y / N		

The number of Free Electives available will vary based on your initial math, writing, and chemistry and physics placement tests. MAT 100, WRT 101, CHEM 100 and PHY 103, if required, count as elective credit.

Because you have variable options (3 or 4 credit courses) it is important to keep track of your total semester hours to be sure you reach 120 by the end of your 4th year.