

A Major Academic Plan (MAP) illustrates one way to complete a degree in a recommended number of semesters. Below is an example of an efficient and recommended plan, but actual plans will vary by individual student needs. Program requirements are based on Catalog Year. See page two for a detailed summary of Major, General Education, Elective, and university requirements.

Course Subject and Title	Cr.	Min. Grade	*GE, UU or UM	**Sem. Offered	Prerequisite	Co Requisite
Semester One						
GE Objective 1: ENGL 1101 English Composition	3	C-	GE	F,S,Su	Appropriate placement score	
GE Objective 3: MATH 1170 Calculus I	4	C-	GE	F,S,Su	MATH 1144 or 1147 or appropriate placement score	
GE Objective 5: Chemistry 1111 & 1111L General Chemistry I	5	C-	GE	F,S	MATH 1143 or 1147 or appropriate test score	
BIOL 1101 Biology I	4	C-		F,S,Su	MATH 1108	MATH 1108
Total	16					
Semester Two						
GE Objective 1: ENGL 1102 Critical Reading and Writing	3	C-	GE	F,S,Su	ENGL 1101 or equivalent	
MATH 1175: Calculus II	4			F,S,Su	MATH 1170	
CHEM 1112 & 1112L General Chemistry II	4	C-		F,S,Su	CHEM 1111 & 1111L and MATH 1143 or 1147	
GE Objective 2: COMM 1101 Principles of Speech	3		GE	F,S,Su		
Free Electives	1					
Total	15					
Semester Three						
GE Objective 4:	3		GE			
CHEM 3301 & CHEM 3303 Organic Chemistry I & Lab	4	C-	UM	F	CHEM 1112 & 1112L or permission of instructor	
GE Objective 5: PHYS 2211 & 2213 Engineering Physics & Lab	5		GE	F,S		MATH 1175
GE Objective 6:	3		GE			
Total	15					
Semester Four						
GE Objective 7 or 8:	3		GE			
CHEM 2232 & CHEM 2234 Quantitative Analysis and Lab	4	C-		S	CHEM 1112 & CHEM 1112L and MATH 1160 or 1170	
CHEM 3302 & CHEM 3304 Organic Chemistry II & Lab	4	C-	UM	S	CHEM 3301 or permission of instructor	
PHYS 2212 & PHYS 2214 Engineering Physics II & Lab	5			F,S	PHYS 2211	
Total	16					
Semester Five						
CHEM 3331 Instrumental Analysis	2		UM	F	CHEM 2232 & CHEM 2234 or permission of instructor	
CHEM 3351 Physical Chemistry	3	C-	UM	F	CHEM 1112, 1112L, MATH 1175, PHYS 2212 or instructor perm.	
CHEM 2211 Inorganic Chemistry I & 2213 Inorganic Chemistry I Lab	4	C-		F	CHEM 3301 & CHEM 3303 or permission of instructor	
CHEM 4451 Physical Chemistry Lab I	1		UM	F		CHEM 3351
Free Electives	3					
GE Objective 4:	3		GE			
Total	16					
Semester Six						
CHEM 3334 Instrumental Analysis Lab	2		UM	S	CHEM 2232, 2234, 3331 or permission of instructor	
CHEM 3352 Physical Chemistry	3	C-	UM	S	CHEM 3351	
CHEM 4452 Physical Chemistry Lab II	1	C-	UM	S	CHEM 3352	
GE Objectives 9:	3		GE			
Free Electives	5					
Total	14					
Semester Seven						
Either BIOL 4432 Biochemistry OR CHEM/BIOL 4445 Biochemistry I	3		UM	F,S F	-BIOL 1101 & CHEM 3301 -BIOL 1101 & CHEM 3302	
CHEM 3365 Synthetic Methods	2	C-	UM	F	CHEM 2211, 3302, 3304	
CHEM 3366 Synthetics Methods Lab	2	C-	UM	F	CHEM 3365	CHEM 3365
CHEM 4481 Independent Problems in Chemistry	2	C-	UM	F		
GE Objectives 6:	3		GE			
Free Electives	2					
Total	14					
Semester Eight						
Either Upper Division Free Electives OR Biochemistry Requirement CHEM/BIOL 4447 Biochemistry II	3		UU or UM			
CHEM 4482 Independent Problems in Chemistry	2		UM	S		
CHEM 4491 Seminar	1		UM	F, S	CHEM 4481 or 4482 or 4485 or permission of instructor	
Free Electives	7 or 8					
Upper Division Free Electives	0 or 1		UU			
Total	14					

*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major

**See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)

2017-2018 Major Requirements	CR	2017-2018 GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	36 cr. min
MAJOR REQUIREMENTS			
	57 or 60	1. Written English (6 cr. min) ENGL 1101	3
CHEM 1111 & CHEM 1111L General Chemistry I (5 credits counted in objective 5)		ENGL 1102	3
CHEM 1112 & CHEM 1112L General Chemistry II	4	2. Spoken English (3 cr. min) COMM 1101	3
CHEM 2211 & CHEM 2213 Inorganic Chemistry I & Lab	4	3. Mathematics (3 cr. min) MATH 1170	4
CHEM 2232 & CHEM 2234 Quantitative Analysis & Lab	4	4. Humanities, Fine Arts, Foreign Lang. (2 courses; 2 categories; 6 cr. min)	
CHEM 3301 & CHEM 3301L Organic Chemistry I & Lab	4		
CHEM 3302 & CHEM 3304 Organic Chemistry II & Lab	4		
CHEM 3331 & CHEM 3334 Instrumental Analysis & Lab	4	5. Natural Sciences (2 lectures-different course prefixes, 1 lab; 7 cr. min)	
CHEM 3351 Physical Chemistry I	3	CHEM 1111 & 1111L General Chemistry I & Lab	5
CHEM 3352 Physical Chemistry II	3	PHYS 2211 & 2213 Engineering Physics I & Lab	5
CHEM 3365 & 3366 Synthetic Methods & Lab	4		
CHEM 4451 Physical Chemistry Lab I	1		
CHEM 4452 Physical Chemistry Lab II	1	6. Behavioral and Social Science (2 courses-different prefixes; 6 cr. min)	
CHEM 4481 & 4482 Independent Problems in Chemistry	4		
CHEM 4491 Seminar	1		
MATH 1170 Calculus I (4 credits counted in objective 3)		One Course from EITHER Objective 7 OR 8 (1 course; 3 cr. min)	
MATH 1175 Calculus II	4	7. Critical Thinking	
PHYS 2211 & 2213 Engineering Physics I & Lab (5 credits counted in objective 5)		8. Information Literacy	
PHYS 2212 & 2214 Engineering Physics II & Lab	5	9. Cultural Diversity (1 course; 3 cr. min)	
Biochemistry Requirement (choose 1 sequence)	3 or 6		
Either BIOL 4432 Biochemistry or CHEM/BIOL 4445 and 4447 Biochemistry I & II	3 or 6	General Education Elective to reach 36 cr. min. (if necessary)	
		Total GE	41
BIOL 1101 and lab	4		
		MAP Credit Summary	CR
		Major	57 or 60
		General Education	41
		Free Electives to reach 120 credits	19 or 22
		TOTAL	120
		Graduation Requirement Minimum Credit Checklist	Confirmed
		Minimum 36 cr. General Education Objectives (15 cr. AAS)	
		Minimum 16 cr. Upper Division in Major (0 cr. Associate)	
		Minimum 36 cr. Upper Division Overall (0 cr. Associate)	
		Minimum of 120 cr. Total (60 cr. Associate)	
Advising Notes		MAP Completion Status (for internal use only)	
Courses in chemistry which are prerequisites for another course must be passed with a C- or better.		Date	
		Department:	4.27.2017 Rene Rodriguez
		CAA or COT:	5.15.2017 jh
		Registrar:	