

CHEMISTRY CURRICULUM – Traditional track

Providing training in a broad range of Chemistry to provide maximum flexibility for research or industrial careers

First Year					
Fall		Spring			
Course	credit hrs	Course	credit hrs	Course	credit hrs
CHEM-1110 Chemistry I	4	CHEM-1200 Chemistry II	4		
PHYS-1100 Physics I	4	PHYS-1200 Physics II	4		
MATH-1010 Calculus I	4	MATH-1200 Calculus II	4		
HUM. or SOC. SCI.	4	HUM. or SOC. SCI.	4		
Second Year					
Fall		Spring		Summer	
CHEM-2150 Equilib Chem & Quantitative Analysis	3	CHEM-2030 Inorganic Chemistry I	3	CHEM-4760 Molec. Biochem	4
CHEM-2120 Experimental Chemistry I	2	CHEM-2260 Organic Chemistry II	3	HUM. or SOC. SCI.	4
CHEM-2250 Organic Chemistry I	3	CHEM-2290 Experimental Chemistry II	3	Electives	8
MATH-2400 Intro to Diff Eq or Biology	4	MATH-2400 Intro to Diff Eq or Biology*	4		
HUM. or SOC. SCI.	4	Elective	4		
Third Year					
Fall		Spring			
CHEM-4010 Inorganic Chemistry II	3				
CHEM-4020 Experimental Chemistry III	3				
CHEM-4410 Macroscopic Physical Chemistry	3				
HUM. or SOC. SCI.	4				
Elective	4				
Fall		Spring			
CHEM-4950 Senior Experience	2	CHEM-4110 Instrumental Analysis	2		
CHEM-4900 Professional Development Seminar	1	CHEM-4120 Experimental Chemistry IV	3		
CHEM-4420 Microscopic Physical Chemistry	3	CHEM-4620 Intro to Polymer Chemistry	3		
HUM. or SOC. SCI.	4	Electives	6		
Electives	6				

A total of 128 credit hours are required for graduation. Twenty eight of these are completely free electives. Students should select electives in consultation with the advisor to give a balanced program totaling 128 credit hours. Some H&SS courses can be deferred until the senior year to allow for earlier electives.

Students planning to pursue graduate studies in Chemistry are recommended to take at least 12 credits in Chemistry courses beyond those required. Research experience such as through CHEM-2950 or URP activities is particularly valuable.

*Biology = BIOL-1010 Intro to Biology **or** BIOL-2120 Intro to Cell and Molecular Biology (recommended).

Students may elect when Math-2400 and the Biology course are taken.

Students may defer Experimental Chemistry III and/or IV until the fourth year.

Students considering medical school should include one semester of General Psychology and one semester of Sociology among their H&SS or elective courses.

CHEMISTRY CURRICULUM - Chemical Biology track

For students interested in the application of Chemistry to Biological problems or for careers in the medical field

First Year					
Fall		Spring		Summer	
Course	credit hrs	Course	credit hrs	Course	credit hrs
CHEM-1110 Chemistry I	4	CHEM-1200 Chemistry II	4		
PHYS 1100 Physics I	4	PHYS 1200 Physics II	4		
MATH-1010 Calculus I	4	MATH-1200 Calculus II	4		
HUM. or SOC. SCI.	4	HUM. or SOC. SCI.	4		
Second Year					
Fall		Spring		Summer	
CHEM-2150 Equilib Chem & Quantitative Analysis	3	CHEM-2030 Inorganic Chemistry I	3	CHEM-4760 Molecular Biochemistry I	4
CHEM-2120 Experimental Chemistry I	2	CHEM-2260 Organic Chemistry II	3	HUM. or SOC. SCI.	4
CHEM-2250 Organic Chemistry I	3	CHEM-2290 Experimental Chemistry II	3	Electives	8
MATH-2400 Intro to Diff Eq	4	BIOL-2120 Intro to Cell & Molecular Bio	4		
HUM or SOC. SCI.	4	Elective	4		
Third Year					
Fall		Spring		Summer	
CHEM-4410 Macroscopic Physical Chem	3				
BIOL 2500 - Genetics and Evolution	4				
HUM. or SOC. SCI.	4				
Elective	4				
Fourth Year					
Fall		Spring		Summer	
CHEM-4420 Microscopic Physical Chem	3	CHEM-4110 Instrumental Analysis	2		
CHEM-4900 Professional Development Seminar	1	BIOL 4710 - Biochemistry Laboratory ¹	4		
CHEM-4950 Senior Experience	2	CHEM-4120 Experimental Chemistry IV	3		
HUM. or SOC. SCI	4	CHEM-4770 Molecular Biochemistry II	4		
Electives	6	Electives	3		

A total of 128 credit hours are required for graduation. Twenty-five of these are completely free electives. Students should select electives in consultation with the advisor to give a balanced program totaling 128 credit hours. Research experience such as through CHEM-2950 or URP activities is strongly encouraged and can be taken for credit.

Courses can be taken out of sequence as long as prerequisites are followed.

Students with weak backgrounds in Biology should take BIOL-1010/1015 in their first year, deferring an H&SS course.

Students considering medical school should include one semester of General Psychology and one semester of Sociology among their H&SS or elective courses.

CHEM-4010 Inorganic Chemistry II is a recommended elective.

¹ BIOL-4720 may be substituted for this course