

# BS in Chemistry

## Curriculum

A minimum of 120 semester credit hours is required for the **B.S. degree in Chemistry**, as outlined below:

### Core Course Requirements – 60 credit hours

Area A	Essential Skills (9 hours)		Hours	
ENGL	1101	Composition I	3	
ENGL	1102	Composition II	3	
MATH	1113	Precalculus	4	
Area B	Institutional Options (4 hours)		Hours	
SPCH	2400	Public Speaking	2	
STS	2400	Science, Technology, and Society	2	
Area C	Humanities/Fine Arts (6 hours)		Hours	
		Literature	3	
		Art & Culture	3	
Area D	Science, Mathematics, and Technology (11 hours)		Hours	
MATH	2253	Calculus I	4	
<i>Take any two courses from the following for a total of 8 hours:</i>				
BIOL	2107K	Biological Principles I	4	
BIOL	2108K	Biological Principles II	4	
CHEM	1211K	General Chemistry I	4	
CHEM	1212K	General Chemistry II	4	
PHYS	2211K	Principles of Physics I	4	
PHYS	2212K	Principles of Physics II	4	

Area E	Social Sciences (12 hours)		Hours	
		American Context	3	
		World History	3	
		Behavioral Sciences	3	
		Cultures & Societies	3	

Area F	Program/Major Prerequisites (18 Hours)		Hours	
	Four courses chosen from the following (if not taken in Area D) for a total of 18 hours*			
CHEM	1211K	General Chemistry I	4	
CHEM	1212K	General Chemistry II	4	
PHYS	2211K	Calculus-based Physics I	4	
PHYS	2212K	Calculus-based Physics II	4	
CHEM	2511K	Organic Chemistry I	4	
CHEM	2512K	Organic Chemistry II	4	
MATH	2254	Calculus II	4	
		carryover hours from areas A and D	2	

\*Courses in this group not taken as part of the core must be taken as electives.

Courses required for all Chemistry majors (29 hours)			Hours	
CHEM	2601	Chemical Literature	2	
CHEM	3100	Analytical Chemistry	5	
CHEM	3300	Instrumental Analysis	4	
CHEM	4411	Inorganic Chemistry	3	
CHEM	4111	Physical Chemistry I	4	
CHEM	4112	Physical Chemistry II	3	
CHEM	4112L	Physical Chemistry II lab	1	
BIOC	3111	Biochemistry I	4	
TCOM	2010	Technical Writing	3	

### General Chemistry Track:

General Chemistry Track Requirements		Hours	
4 upper level Chemistry, Math, or Science electives (as approved by department)		12-16	
Free electives		15-19	

Material Science Track Requirements			Hours	
MSCI	3101	Material Science	4	
CHEM	4415	Solid State Chemistry	3	
CHEM	4112	Adv. Inorganic Chemistry	3	
Chemistry elective		3-4		
Free electives		17-18		

Chemistry Electives				
CHEM	2211K	Environmental Chemistry	4	
CHEM	3901-5	Special Topics	1-5	
CHEM	4121	Quantum Chemistry	3	
CHEM	4412	Advanced Inorganic Chemistry	3	
CHEM	4415	Solid State Chemistry	3	
CHEM	4511	Advanced Organic Chemistry	3	
CHEM	4901-5	Special Topics	1-5	
BIOC	3112K	Biochemistry II	4	
BIOC	3115K	Physical Biochemistry	4	
BIOC	3901-5	Special Topics	1-5	
BIOC	4901-5	Special Topics	1-5	
MSCI	3101K	Introduction to Material Science	4	