

# Chemistry Major

## First Year

CHEM 1103	General Chemistry I	3	CHEM 1113	General Chemistry II	3
CHEM 1121	General Chemistry I Lab	1	CHEM 1131	General Chemistry II Lab	1
ENGL 1013	Composition I	3	ENGL 1023	Composition II	3
PSY 1013	Intro. To Psych <b>OR</b>		HIST 1013	Survey of Civilization I <b>OR</b>	
	SOC 2213 Intro. To Sociology	3		HIST 1023 Survey of Civilization II	3
MATH 1043	College Algebra	3	MATH 2255	Calculus I	5
MATH 1033	Trigonometry	3			
Total		16	Total		15

## Second Year

BIOL 1063	Biological Science	3	CHEM 3414	Organic Chemistry II	4
BIOL 1071	Biological Science Lab	1	ENGL 2283	World Literature I <b>OR</b>	
CHEM 3404	Organic I	4	ENGL 2293	World Literature II	3
MATH 3495	Calculus II	5	MATH 3525	Dif. Equations & Multi-Dim. Calc.	5
SPCH 1023	Public Spk. <b>OR</b>		PHYS 2313	University Physics I	3
	SPCH 2283 Bus. & Prof. Spch.	3	PHYS 2231	Physics I Lab	1
Total		16	Total		16

## Third Year

ART 1053	Art Appreciation <b>OR</b>		CHEM 3444	Instrumental Analytiscs <b>OR</b>	
	MUS 1113 Music Appreciation	3		CHEM Upper Level Elective	4
CHEM 3314	Quantitative Analysis	4	CHEM 4704	Phys Chem: Thermo. <b>OR</b>	
	Minor Elective (Upper Level)	3		CHEM Phys Chem: K & Q	4
PHYS 2323	University Physics II	3		Minor Elective (Upper Level)	3
PHYS 2241	Physics II Lab	1	HIST 2213	Amer. History I <b>OR</b>	
	Social Science Elective	3		HIST 2223 Amer. History II <b>OR</b>	
				PSCI 2213 Amer. National Govt.	3
Total		17	Total		14

## Fourth Year

CHEM 4611	Chemistry Seminar <b>OR</b>		CHEM 3444	Instrumental Analytiscs <b>OR</b>	
	CHEM 4691 Senior Research	1		CHEM Upper Level Elective	4
	Humanities Elective	3	CHEM 4704	Phys Chem: Thermo. <b>OR</b>	
	Minor Elective (Upper Level)	3		CHEM Phys Chem: K & Q	4
	Minor	8		Minor	7
Total		15	Total		15

Students required to enroll in Developmental courses will either need to attend summer school or take additional courses during the Fall and/or Spring semesters. Credit hours earned in developmental courses do not apply toward the 124 hours required for graduation.

## Specific requirements for a Chemistry major.

### Major Requirements 36 hours

CHEM 1103	General Chemistry I
CHEM 1113	General Chemistry II
CHEM 1121	General Chemistry I Laboratory
CHEM 1131	General Chemistry II Laboratory
CHEM 3314	Quantitative Analysis
CHEM 3404	Organic Chemistry I
CHEM 3414	Organic Chemistry II
CHEM 3444	Instrumental Analysis
CHEM 4704	Physical Chemistry: Thermodynamics
CHEM 4714	Physical Chemistry: Kinetic & Quantum Mechanics

Choose one of the following:

CHEM 4611	Chemistry Seminar -or-
CHEM 4691	Senior Research

Electives:

Three hours of 3000-4000 level Chemistry courses

### Supportive Requirements 29 hours

MATH 1033	Trigonometry -and-
MATH 1043	College Algebra
MATH 2255	Calculus I
MATH 3495	Calculus II
MATH 3525	Differential Equations and Multi-Dimensional Calculus
PHYS 2203	General Physics I and PHYS 2213 General Physics II
-or-	
PHYS 2313	University Physics I and PHYS 2323 University Physics II
PHYS 2231	Physics Laboratory I
PHYS 2241	Physics Laboratory II

The chemistry major requires a minor.

As some courses are not offered every semester it is very important for students to enroll in courses when they are available.

The following courses are offered in the indicated semester:

#### Every Fall

CHEM 3314	Quantitative Analysis
CHEM 3404	Organic Chemistry I
CHEM 4633	Biochemistry I
MATH 3495	Calculus II
PHYS 2323	University Physics II

#### Every Spring

CHEM 3414	Organic Chemistry II
MATH 3525	Differential Equations and Multi-Dimensional Calculus
CHEM 1113	General Chemistry II
CHEM 1131	General Chemistry II Lab
CHEM 4643	Biochemistry II
CHEM 4731	Biochemistry Lab
PHYS 2313	University Physics I

#### Fall of odd numbered year semesters:

CHEM 4634	Biochemistry I
MATH 3403	Probability & Statistics
MATH 3453	Abstract Algebra

#### Spring of even numbered years:

CHEM 4643	Biochemistry II
CHEM 4714	Physical Chemistry: K & QM
MATH 3513	Discrete Mathematics

#### Fall of even numbered years:

CHEM 4624	Advanced Inorganic
MATH 3413	Number Theory
MATH 3423	Geometry

#### Spring of odd numbered years

CHEM 3444	Instrumental Analysis
CHEM 4714	Physical Chemistry: Thermodynamics
MATH 3233	History of Mathematics
MATH 3463	Linear Algebra