

BS CHEM: CHEMISTRY (catalog 2014-15 & later)

If pre-Medical/Dental/Pharmacy—see BS CHEM:Biochem Biology list and discuss preparation with Advisor

Major Courses (52 hours):

Course Title	Hrs	Course Number
General Chemistry I (with lab)	4	CHEM 1110/1110L
General Chemistry II (with lab)	4	CHEM 1120/1120L
Scientific Communication	2	CHEM 2810
Organic Chemistry I (with lab)	4	CHEM 3010/3010L
Organic Chemistry II (with lab)	4	CHEM 3020/3020L
Quantitative Analysis (with lab)	4	CHEM 3210/3210L
Inorganic Chemistry	3	CHEM 3310
Physical Chemistry I (with lab)	4	CHEM 3710/3710L

Course Title	Hrs	Course Number
Physical Chemistry II (with lab)	4	CHEM 3720/3720L
Chemical Literature	1	CHEM 3820
Instrumental Analysis (with lab)	4	CHEM 4230/4230L
Advanced Inorganic (with lab)	4	CHEM 4320/4320L
Biochemistry	3	CHEM 4510
Seminar	1	CHEM 4830
Chemistry Elective*	4	CHEM 4030/4030L, 4220/4220L or 4530/4530L
One research course	2	CHEM 4995 or 4997 or a 2 nd CHEM Elective*

Related Courses (27 hours):

Course Title	Hrs	Course Number
Physics – Mech/Heat (with lab) or Calculus Based Physics (M/H)	4 or 4	PHYS 1030/1030L or PHYS 2300/2300L
Calculus with Analytical Geometry I	4	MATH 1950
Linear Algebra	3	MATH 2200

Course Title	Hrs	Course Number
Physics – Elect/Optics (with lab) or Calculus Based Physics (E/M)	4 or 4	PHYS 1040/1040L or PHYS 2310/2310L
Calculus with Analytical Geometry II	4	MATH 1960
1 year Foreign Language	8	

General Education (40-41 hours – some fulfilled within major and thus hours reduced):

Category	Hrs	Courses
Rhetoric & Writing	6	ENGL 1010 & 1020
Humanities/FineArts,NonWestern	12,3	*For 2014-15 CATALOG & LATER
or Cul/Civ and Hum/Fine Arts	9,6	*For 2013-14 CATALOG & EARLIER

Category	Hrs	Courses
Behavioral and Social Sciences	6	Various (in two different disciplines)
Natural Sciences	8	Completed with Physics requirement
Mathematics and Statistics	7	Math 1950 and Math 2100

Sample Schedule:

Freshman		Sophomore		Junior		Senior	
Fall	Hrs	Fall	Hrs	Fall	Hrs	Fall	Hrs
CHEM 1110/1110L	4	CHEM 2810	2	CHEM 3310	3	CHEM 4230/4230L	4
ENGL 1010	3	CHEM 3010/3010L	4	CHEM 3710/3710L	4	CHEM 4830	1
MATH 1950	4	CHEM 3210/3210L	4	CHEM 3820	1	CHEM 4997	2
Behav/Soc Science	3	PHYS 1030/1030L	4	For Lang I	4	CHEM Elect	4
				Humanities/Fine Arts	3	Elective	3
Total	14	Total	14	Total	15	Total	14
Spring	Hrs	Spring	Hrs	Spring	Hrs	Spring	Hrs
CHEM 1120/1120L	4	CHEM 3020/3020L	4	CHEM 3720/3720L	4	CHEM 4320/4320L	4
ENGL 1020	3	MATH 2200	3	CHEM 4510	3	CHEM 4997	2
MATH 1960	4	PHYS 1040/1040L	4	MATH 2100	3	Humanities/Fine Arts	3
Humanities/Fine Arts	3	Behav/Soc Science	3	Non-Western	3	Electives	6
		Humanities/Fine Arts	3	For Lang II	4		
Total	14	Total	17	Total	17	Total	15

MATH: Students not placed into MATH 1950 add lower MATH classes and take math every semester until MATH 1960 done.

Math Placement is based on minimum ACT scores such that
 If Math ACT 19–, then MATH 1710
 If Math ACT 24–, then MATH 1730
 If Math ACT 26–, then MATH 1720
 If Math ACT 28–, then MATH 1950

STUDENTS who wish to pursue mathematically oriented graduate studies such as Physical Chemistry or Computational/Quantum Chemistry should consider adding Differential Equations or additional Calculus.