

Updated 8/1/2016

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
General Chemistry for Physical Science & Engineering I <b>CHEM 124 (4)</b> * [B3/B4]	General Chemistry for Physical Science & Engineering II <b>CHEM 125 (4)</b> (CHEM 124 or AP Chem score of 5)	General Chemistry for Physical Science & Engineering III <b>CHEM 126 (4)</b> (CHEM 125 w/min C-)	Organic Chemistry I <b>CHEM 216 (5)</b> (CHEM 126 or 129 w/min C-)	Organic Chemistry II <b>CHEM 217 (3)</b> (CHEM 216 w/min C-, Coreq: CHEM 221)	Organic Chemistry III <b>CHEM 218 (3)</b> (CHEM 217 w/min C-, Coreq: CHEM 324)	Biochemical Principles <b>CHEM 371 (5)</b> (CHEM 217 or 317; BIO 161. Recom: CHEM 231/331)	Physical Chemistry Lab <b>CHEM 354 (2)</b> (CHEM 231/331, Coreq: CHEM 352)	Physical Chemistry III Lab <b>CHEM 357 (1)</b> (CHEM 353)	Inorganic Chemistry <b>CHEM 481 (3)</b> (CHEM 352 and CHEM 231/331 or Instr. Consent)	Instrumental Analysis <b>CHEM 439 (5)</b> (CHEM 231/331, CHEM 354, Recom: CHEM 353)	Senior Project Report <b>CHEM 461 (1)</b> (Instr. Consent)
Calculus I <b>MATH 141 (4)</b> * [B1]	Calculus II <b>MATH 142 (4)</b> (MATH 141 w/min C-) [B1]	Calculus III <b>MATH 143 (4)</b> (MATH 142 w/min C-)	Calculus IV <b>MATH 241 (4)</b> (MATH 143)	Organic Chemistry Lab II <b>CHEM 221 (2)</b> (CHEM 217)	Organic Chemistry Lab III <b>CHEM 324 (2)</b> (CHEM 218)	Physical Chemistry I <b>CHEM 351 (3)</b> (CHEM 126 or 129; MATH 143; PHYS 122 or 132)	Physical Chemistry II <b>CHEM 352 (3)</b> (CHEM 351)	Physical Chemistry III <b>CHEM 353 (3)</b> (CHEM 352)	Undergraduate Seminar <b>CHEM 459</b> or Sci Student Teach. Workshop <b>SCM 491</b> (2) <sup>4</sup> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *
Free Elective <b>(2)<sup>1</sup></b>	GE (4) **	Introduction to Cell & Molecular Biology <b>BIO 161 (4)</b> (CHEM 110, 111, 124, or 127) [B2]	General Physics IA <b>PHYS 141 (4)</b> (MATH 141 w/min C-, MATH 142 or 182)	CSC / MATH / STAT Elective <b>CSC 232, 234, 235, MATH 206, 244, STAT 218, or 312</b> (3-4) *	Quantitative Analysis <b>CHEM 331 (5)<sup>2</sup></b> (CHEM 126 or 129)	GE (4) **	Physics Elective (200-level and above) <b>(3)</b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Inorganic Chemistry Laboratory <b>CHEM 484 (2)</b> (CHEM 481)	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *
	Free Elective <b>(1)<sup>1</sup></b>	Free Elective <b>(1)<sup>1</sup></b>		General Physics II <b>PHYS 132 (4)</b> (PHYS 131 or HNRS 131 or PHYS 141)	General Physics III <b>PHYS 133 (4)</b> (PHYS 131 or HNRS 131 or PHYS 141; MATH 142. Recom: MATH 241)	GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **
Expository Writing <b>ENGL 133/134 (4)**</b> [A1] Can be taken anytime during Freshman Year				GE (4) **			GE (4) **	GE (4) **	Free Elective <b>(1)<sup>1</sup></b>		Free Elective <b>(3-4)<sup>1</sup></b>
Oral Communication <b>COMS 101/102 (4)**</b> [A2] Can be taken anytime during Freshman Year											
	Reasoning, Argumentation, & Writing [A3] <b>COMS 126; COMS/ENGL 145; ENGL 148; PHIL 126 (4)**</b> (Completion of GE A1 with a C- or better) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years.					Graduation Writing Requirement <b>GWR*</b> (Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)					
14	17	17	13	16-17	14	16	16	15	12	15	14-15
										TOTAL:	180

**Notes:**

**MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET**

\* Refer to current catalog for prerequisites.

\*\* One course from each of the following GE areas must be completed: A1, A2, A3, C1, C2, C3, C4, C1-C5 elective, D1, D2, D3, D4, D5 and F.

C4, D5 and F should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, D3, D4, D5 or F.

<sup>1</sup> A total of 8-9 units of elective credit are required for this major/concentration combination. The Chemistry Department strongly recommends that you take CHEM 101, offered only in Fall quarter, and SCM 150 for Math and Science elective credit in your first year.

<sup>2</sup> Students should take CHEM 331 during their second year, and as soon as possible after completing CHEM 126 or 129.

<sup>3</sup> Select at least 15 units of Advanced Chemistry Electives. See CHEM curriculum sheet or Department for a current list of Approved Chemistry Electives. This is the default curriculum required for students who do not declare the Polymers and Coatings Concentration.

<sup>4</sup> SCM 491 only for students pursuing Single-Subject Teaching Credential.

**Legend:**

Course Title	
<b>Course # (Units)</b>	<b>Major (77)</b>
(Prerequisite)	<b>Support (38-39)</b>
[GE Area]	<b>General Ed. (56)</b>
	<b>Free Electives (8-9)</b>