

Updated 7/18/2014

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
General Chemistry I <b>CHEM 127 (4)</b> * [B3/B4]	General Chemistry II <b>CHEM 128 (4)</b> (CHEM 127 or AP Chem score of 5)	General Chemistry III <b>CHEM 129 (4)</b> (CHEM 125 or 128)	Organic Chemistry I <b>CHEM 316 (5)</b> (CHEM 125 or 129)	Organic Chemistry II <b>CHEM 317 (5)</b> (CHEM 316)	Organic Chemistry III <b>CHEM 318 (3)</b> (CHEM 317)	Biochemical Principles <b>CHEM 371 (5)</b> (CHEM 317, BIO 161. Recom: CHEM 331)	Physical Chemistry Lab <b>CHEM 354 (2)</b> (CHEM 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 331)	Instrumental Analysis <b>CHEM 439 (5)</b> (CHEM 331, CHEM 354. Recom: CHEM 353)	Senior Project Report <b>CHEM 461 (1)</b> (Consent of Instructor)
Calculus I <b>MATH 141 (4)</b> * [B1]	Calculus II <b>MATH 142 (4)</b> (MATH 141 with min C-)	Calculus III <b>MATH 143 (4)</b> (MATH 142 with min C-)	Calculus IV <b>MATH 241 (4)</b> (MATH 143)	CSC / MATH / STAT Elective <b>CSC 232, 234, 235, MATH 206, 244, STAT 218, or 312 (3-4)</b> *	Advanced Organic Chemistry Lab <b>CHEM 319 (2)</b> (Concurrent or prior enrollment in CHEM 318)	Physical Chemistry I <b>CHEM 351 (3)</b> (CHEM 129, PHYS 122 or 132, MATH 143)	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 (2)</b> (CHEM 318 and Jr Standing)	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Inorganic Chemistry Laboratory <b>CHEM 484 (2)</b> (CHEM 481)
Free Elective (2) <sup>1</sup>	GE (4) **	Introduction to Cell and Molecular Biology <b>BIO 161 (4)</b> (CHEM 110, 111, 124, or 127) [B2]	General Physics IA <b>PHYS 141 (4)</b> (MATH 141 with min C-, MATH 142 or 182)	General Physics II <b>PHYS 132 (4)</b> (PHYS 131 or 141)	General Physics III <b>PHYS 133 (4)</b> (PHYS 131 or 141, MATH 142. Recom: MATH 241)	GE (4) **	Physics Elective (200-level and above) <b>(3)</b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *	Advanced Chemistry Elective <b>(3)<sup>3</sup></b> *
	Free Elective (1) <sup>1</sup>	Free Elective (1) <sup>1</sup>		GE (4) **	Quantitative Analysis <b>CHEM 331 (5)<sup>2</sup></b> (CHEM 129)	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) **			Free Elective (4-5) <sup>1</sup>
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> (Can be taken any time after 90 earned units)				
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 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.

**Legend:**

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