

Updated 7/18/2014

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
General Chemistry I CHEM 127 (4) * [B3/B4]	General Chemistry II CHEM 128 (4) (CHEM 127 or AP Chem score of 5)	General Chemistry III CHEM 129 (4) (CHEM 125 or 128)	Organic Chemistry I CHEM 316 (5) (CHEM 125 or 129)	Organic Chemistry II CHEM 317 (5) (CHEM 316)	Organic Chemistry III CHEM 318 (3) (CHEM 317)	Biochemical Principles CHEM 371 (5) (CHEM 317, BIO 161. Recom: CHEM 331)	Molecular Biology CHEM 373 (3) (CHEM 371)	Metabolism CHEM 372 (4) (CHEM 371)	Molecular Biology Lab CHEM 475 (3) (BIO 161, and min C- in BIO 351 or CHEM 373)	Advanced Lab CHEM 439 or CHEM 474 or BIO 361 or BIO 476 (2)³ *	Approved Advanced Biochemistry Elective (3)² *
Calculus I MATH 141 (4) * [B1]	Calculus II MATH 142 (4) (MATH 141 with min C-)	Calculus III MATH 143 (4) (MATH 142 with min C-)	Quantitative Analysis CHEM 331 (5) (CHEM 129)	GE (4) **	Advanced Organic Chemistry Lab CHEM 319 (2) (Concurrent or prior enrollment in CHEM 318)	Physical Chemistry I CHEM 351 (3) (CHEM 129, PHYS 122 or 132, MATH 143)	Physical Chemistry II CHEM 352 (3) (CHEM 351)	Physical Chemistry III CHEM 353 (3) (CHEM 352)	Approved Advanced Biochemistry Elective (3)² *	Approved Advanced Biochemistry Elective (3)² *	Approved Advanced Biochemistry Elective (3)² *
GE (4) **	GE (4) **	Introduction to Cell and Molecular Biology BIO 161 (4) * [B2]	Physics I or IA PHYS 121 or PHYS 141 (4) *	Physics II PHYS 122 or PHYS 132 (4) *	Physics III PHYS 123 or PHYS 133 (4) *	GE (4) **	GE (4) **	Physical Chemistry Lab CHEM 354 (2) (CHEM 331. Coreq: CHEM 352)	Cell Biology or General Microbiology I BIO 452 or MCRO 224 (4-5) *	Undergraduate Seminar CHEM 459 (2) (CHEM 318 and Junior Standing)	Senior Project Report CHEM 461 (1) (Consent of Instructor)
Free Elective (1)¹	Free Elective (1)¹	Free Elective (1)¹	Free Elective (1)¹	Free Elective (1)¹	GE (4) **	GE (4) **	GE (4) **	GE (4) **	Free Elective (4)¹	GE (4) **	GE (4) **
Expository Writing ENGL 133/134 (4)** [A1] Can be taken anytime during Freshman Year											
Oral Communication COMS 101/102 (4)** [A2] Can be taken anytime during Freshman Year											
			Reasoning, Argumentation, & Writing [A3] COMS 126; COMS/ENGL 145; ENGL 148; PHIL 126 (4)** (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 GWR* (Can be taken any time after 90 earned units)					
17	17	17	15	14	13	16	14	13	14-15	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.

¹ A maximum of 17 units of elective credit may be required for the major to reach the 180 unit requirement to graduate. Excess units of AP Test credit may be applied to elective credit. The Chemistry Dept strongly recommends taking CHEM 101 (1) in your first quarter. Also, it is suggested that you take supplemental workshops (SCM 150) along with available Math/Science courses in your first year.

² Select 12 units from Advanced Biochemistry Electives. At least two courses must be chosen from List A, including one lecture.

³ The Biochemistry/Chemistry Department recommends CHEM 474 be taken as the Advanced Lab option. Excess units count as approved Advanced Biochemistry electives.

Legend:

Course Title Course # (Units) (Prerequisite)	Major (75)
	Support (32-33)
	General Ed. (56)
[GE Area]	Free Electives (16-17)