

Updated 5/24/2022

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Gen Chem for Physical Science & Engineering I <b>CHEM 124 (4)</b> * [B1 & B3]	Gen Chem for Physical Science & Engineering II <b>CHEM 125 (4)</b> (CHEM 124 or AP Chem score of 5)	Gen Chem for Physical Science & Engineering III <b>CHEM 126 (4)<sup>1</sup></b> (CHEM 125 w/min C- or Instr. Consent)		Undergraduate Seminar I <b>CHEM 203 (1)</b> (CHEM 126)		Undergraduate Seminar II <b>CHEM 303 (1)</b> (CHEM 203; CHEM 218)		Undergraduate Seminar III: Senior Project <b>CHEM 403 (1)</b> (CHEM 303 and CHEM 352)			
Calculus I <b>MATH 141 (4)</b> * [B4]	Calculus II <b>MATH 142 (4)</b> (MATH 141 w/min C- or Instr. Consent) [GE Elective]	Calculus III <b>MATH 143 (4)</b> (MATH 142 w/min C- or Instr. Consent)	Organic Chemistry I <b>CHEM 216 (5)</b> (CHEM 126 or 129 w/min C- or Instr. Consent)	Organic Chemistry II <b>CHEM 217 (3)</b> (CHEM 216 w/min C- or Instr. Consent; Coreq: CHEM 221)	Organic Chemistry III <b>CHEM 218 (3)</b> (CHEM 217 w/min C- or Instr. Consent; Coreq: CHEM 324)	Metabolism <b>CHEM 372 (4)</b> (CHEM 369)	Molecular Biology <b>CHEM 373 (3)</b> (CHEM 369)	Molecular Biology Lab <b>CHEM/BIO 475 (3)</b> (BIO 161; min C- in BIO 351 or CHEM 373 or Instr. Consent)	Approved Advanced Biochemistry Elective <b>(3)<sup>2</sup></b> *	Approved Advanced Biochemistry Elective <b>(3)<sup>2</sup></b> *	Approved Advanced Biochemistry Elective <b>(3)<sup>2</sup></b> *
	Intro to Cell & Molecular Biology <b>BIO 161 (4)</b> (Recom: CHEM 110, 124, or 127) [B2 & B3]	General Physics I <b>PHYS 141 (4)</b> *	Quantitative Analysis <b>CHEM 331 (5)<sup>1</sup></b> (CHEM 126 or 129)	Organic Chemistry Laboratory II <b>CHEM 221 (2)</b> (Coreq: CHEM 217)	Organic Chemistry Laboratory III <b>CHEM 324 (2)</b> (Coreq: CHEM 218)		Physical Chemistry I <b>CHEM 351 (3)</b> (CHEM 126 or 129; MATH 143; PHYS 122 or 142)	Physical Chemistry II <b>CHEM 352 (3)</b> (CHEM 351)	Physical Chemistry III <b>CHEM 353 (3)</b> (CHEM 352)		Approved Advanced Biochemistry Elective <b>(3)<sup>2</sup></b> *
	Expository Writing <b>ENGL 133/134 (4)**</b> [A1]		General Physics II <b>PHYS 142 (4)</b> (PHYS 141; MATH 142 or 182)	General Physics III <b>PHYS 143 (4)</b> (PHYS 141; MATH 142; Recom: MATH 241)	Biochemical Principles <b>CHEM 369 (5)</b> (Jr Stgd; GE Areas A w/min C-, B1, & B4 w/min C-; BIO 161; CHEM 217 or 317) [Upper-Div B]	Choose one: <b>CHEM 474 or BIO 476 (3)</b> *	Physical Chemistry Lab <b>CHEM 356 (2)</b> (Jr Stgd; GE Area A w/min C-; CHEM 231/331; Coreq: CHEM 352) [GWR]	Choose one: <b>Gen Micro I MCRO 224 (5)</b> (BIO 161; CHEM 125 or 128; Recom: CHEM 129) <b>PO</b>	<b>Cell Biology BIO 452 (4)</b> (BIO 351 or CHEM 373; CHEM 216, 312, or 316; Recom: CHEM 314 or 369) <b>PO</b>	<b>Physical BCHM CHEM 432 (3)</b> (CHEM 369; Recom: CHEM 351) <b>OR</b>	
	Oral Communication <b>COMS 101/102 (4)**</b> [A2]			GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **	GE (4) **
GE (4) **	Reasoning, Argumentation, & Writing [A3] <b>COMS 126, 145, ENGL 145, 147, ES 145, PHIL 126, or WGQS 145 (4)**</b> (Completion of GE A1 with a C- or better) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years.					GE (4) **	GE (4) **	Free Elective (4)	Free Elective (3-5)	Free Elective (4)	Free Elective (3)
Free Elective (1) <sup>4</sup> Recom: CHEM 101	Free Elective (1) <sup>4</sup>	Free Elective (1) <sup>4</sup>	Free Elective (1) <sup>4</sup>	Free Elective (1) <sup>4</sup>		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)					
17	17	17	15	15	14	16	14	16	14	12	13
										<b>TOTAL:</b>	<b>180</b>

**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, Upper-Division B, C1, C2, Lower-Division C Elective, Upper-Division C, D1, D2, Upper-Division D, Lower-Division E, F, and a GE Elective. Upper-Division B, Upper-Division C, and Upper-Division D 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: Upper-Division B, C1, Upper-Division C, D1, D3, or E.

<sup>1</sup> Students should take CHEM 331 as soon as possible after completing CHEM 126.

<sup>2</sup> Select 12 units from Approved Advanced Biochemistry Electives. This is the default curriculum for students who do not declare a concentration. At least two courses must be chosen from List A (see catalog), including one lecture. Consultation with advisor is recommended prior to selecting Approved Advanced Biochemistry Electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

<sup>3</sup> If a General Education (GE) course is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.

<sup>4</sup> A total of 19-21 units of Free Elective credit are required for the default curriculum. 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.

**Legend:**

Course Title	Major (76)
Course # (Units) (Prerequisite)	Support (31-33)
[GE Area]	General Ed. (52)
	Free Electives (19-21) <sup>3</sup>