CAL POLY
SAN LUIS OBISPO

B.S. in CHEMISTRY
Suggested 4-Year Academic Flowchart

2021-2022 Catalog

Updated 6/23/2021

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Gen Chem for Physical Science & Engineering I **CHEM 124 (4)** * [B1 & B3]	*Gen Chem for Physical Science & Engineering II* **CHEM 125 (4)** (CHEM 124 or AP Chem score of 5)	*Gen Chem for Physical Science & Engineering III* **CHEM 126 (4)** (CHEM 125 w/min C-)		*Undergraduate Seminar I* **CHEM 203 (1)** (CHEM 126)		*Undergraduate Seminar II* **CHEM 303 (1)** (CHEM 203; CHEM 218)			*Undergraduate Seminar III: Senior Project* **CHEM 403 (1)** (CHEM 303 and CHEM 352)		
Calculus I **MATH 141 (4)** * [B4]	*Calculus II* **MATH 142 (4)** (MATH 141 w/min C-) [GE Elective]	*Calculus III* **MATH 143 (4)** (MATH 142 w/min C-)	*Organic Chemistry I* **CHEM 216 (5)** (CHEM 126 or 129 w/min C-)	*Organic Chemistry II* **CHEM 217 (3)** (CHEM 216 w/min C-. Coreq: CHEM 221)	*Organic Chemistry III* **CHEM 218 (3)** (CHEM 217 w/min C-. Coreq: CHEM 324)	*Physical Chemistry I* **CHEM 351 (3)** (CHEM 126 or 129; MATH 143; PHYS 122 or 132)	*Physical Chemistry II* **CHEM 352 (3)** (CHEM 351)	*Physical Chemistry III* **CHEM 353 (3)** (CHEM 352)	*Inorganic Chemistry* **CHEM 481 (3)** (CHEM 352 and CHEM 231/331)	*Instrumental Analysis* **CHEM 439 (5)** (CHEM 231/331; CHEM 354. Recom: CHEM 353)	
		Introduction to Cell & Molecular Biology **BIO 161 (4)** (Recom: CHEM 110, 124, or 127) [B2 & B3]	*Calculus IV* **MATH 241 (4)** (MATH 143)	*Organic Chemistry Laboratory II* **CHEM 221 (2)** (Coreq: CHEM 217)	*Organic Chemistry Laboratory III* **CHEM 324 (2)** (Coreq: CHEM 218)	*Biochemical Principles* **CHEM 371 (5)** (CHEM 217 or 317; BIO 161. Recom: CHEM 231/331)	*Physical Chemistry Lab* **CHEM 354 (2)** (CHEM 231/331. Coreq: CHEM 352)	*Physical Chemistry III Lab* **CHEM 357 (1)** (CHEM 353)	*Inorganic Chemistry Laboratory* **CHEM 484 (2)** (CHEM 481)	**Advanced Chemistry Elective (3)[3]** *	**Advanced Chemistry Elective (3)[3]** *
Expository Writing **ENGL 133/134 (4)**** [A2]			*General Physics IA* **PHYS 141 (4)** (MATH 141 w/min C-, MATH 142 or 182)	CSC / MATH / STAT Elective **CSC 232, 234, 235, MATH 206, 244, STAT 218, or 312 (3-4)***	*Quantitative Analysis* **CHEM 331 (5)[2]** (CHEM 126 or 129)		**Physics Elective (200-level and above) (3)**	**Advanced Chemistry Elective (3)[3]** *		**Advanced Chemistry Elective (3)[3]** *	**Advanced Chemistry Elective (3)[3]** *
Oral Communication **COMS 101/102 (4)**** [A1]				*General Physics II* **PHYS 132 (4)** (PHYS 141)	*General Physics III* **PHYS 133 (4)** (PHYS 141; MATH 142. Recom: MATH 241)						
GE (4) **	**GE (4)** **					**GE (4)** **	**GE (4)** **	**GE (4)** **			
	Reasoning, Argumentation, & Writing [A3] **COMS 126, 145, ENGL 145, 147, ES 145, PHIL 126, or WGS 145 (4)**** (Completion of GE A2 with a C- or better) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years.					**GE (4)** **	**GE (4)** **	**GE (4)** **	**GE (4)** **	**GE (4)** **	**GE (4)** **
						Graduation Writing Requirement GWR* (Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)					
Free Elective (1)[1] Recom: CHEM 101	**Free Elective (1)[1]**	**Free Elective (1)[1]**							**Free Elective (2)[1]**		**Free Elective (3-4)[1]**
17	17	17	13	13-14	14	17	16	15	12	15	13-14
										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, B1, B2, Upper-Division B, C1, C2, Lower-Division C, Upper-Division C, D1, D2, Upper-Division D, Lower Division E, Lower Division F, and 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, D2, Upper-Division D,

[1] 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.

[2] Students should take CHEM 331 during their second year, and as soon as possible after completing CHEM 126.

[3] 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.

Legend:

Course Title
Course # (Units)
(Prerequisite)
[GE Area]

- **Major (77)**
- **Support (38-39)**
- **General Ed. (56)**
- **Free Electives (8-9)**