BS CHEMISTRY

2020-2021 *updated 01.21.2020* **Units Required 180**

NAME _____
STUDENT ID _____
CONCENTRATION _____
MINOR _____

Cal Poly, Higher Ed., and Major GPA at least 2.00	[ ] YES	[ ] NO
US Cultural Pluralism Met	[ ] YES	[ ] NO
60 Units Upper-Division Met Taken/Remaining	[ ] YES	[ ] NO
GWR Met	[ ] YES	[ ] NO
Upper-Division GE Met Taken/Remaining	[ ] YES	[ ] NO
Free Electives Met	[ ] YES	[ ] NO
C- or higher in A1, A2, A3, and B4	[ ] YES	[ ] NO
Residency Requirements Met	[ ] YES	[ ] NO

NOTE: This is a snapshot of the curriculum as originally published in the catalog. The Degree Progress Report (DPR) reflects updates to the published catalog. The DPR will be used to award your degree and calculate your EAP.

Note: No Major, Support or Concentration courses may be selected as credit/no credit.

MAJOR COURSES (77-80)	Units	Grade	Grd Pts
CHEM 124 Gen Chem I for PSE (B1&B3) [1]	4		
CHEM 125 Gen Chemistry II for PSE	4		
CHEM 126 Gen Chemistry III for PSE	4		
CHEM 203 Undergraduate Seminar I	1		
CHEM 216 Org Chemistry I	5		
CHEM 217 Org Chemistry II	3		
CHEM 218 Org Chemistry III	3		
CHEM 221 Organic Chem Lab II	2		
CHEM 303 Undergraduate Seminar II	1		
CHEM 324 Org Chem Lab III	2		
CHEM 331 Quantitative Analysis [2]	5		
CHEM 351 Physical Chemistry I	3		
CHEM 352 Physical Chemistry II	3		
CHEM 353 Physical Chemistry III	3		
CHEM 354 Physical Chem Lab	2		
CHEM 357 Physical Chem III Lab	1		
CHEM 371 Biochemical Principles	5		
CHEM 403 Ugrd Sem. III: Sr Proj	1		
CHEM 439 Instrumental Analysis	5		
CHEM 481 Inorganic Chemistry	3		
CHEM 484 Inorganic Chemistry Lab	2		
Select 15 units of Advanced Chemistry Electives **or** declare and follow the 18-unit Polymers & Coatings Concentration [3] (see reverse)	15 or 18		

SUPPORT COURSES (38-39)

BIO 161 Intro to Cell & Molecular Biol (B2&B3)[1]	4
MATH 141 Calculus I (B4)[1]	4
MATH 142 Calculus II (GE Elective)[1]	4
MATH 143 Calculus III	4
MATH 241 Calculus IV	4
Select one course from the following: CSC 232, 234, 235; MATH 206, 244; STAT 218, 312	3-4
PHYS 141 General Physics IA	4
PHYS 132 General Physics II	4
PHYS 133 General Physics III	4
Physics elective (200-level and above)	3

GENERAL EDUCATION (GE) 56

72 units required, *16 of which are specified in Major/Support*
Minimum of 12 units required at the 300 level.

Area A English Language Comm & Critical Thinking		**12**
A1	Oral Communication	4
A2	Written Communication	4
A3	Critical Thinking	4
Area B Scientific Inquiry & Quantitative Reasoning		**4**
B1	Physical Science *(4 units in Major)* [1]	
B2	Life Science *(4 units in Support)* [1]	
B3	Laboratory Activity *(in Major/Support)* [1]	
B4	Math/Quant. Reasoning *(4 units in Support)* [1]	
Upper-Division B		4
Area C Arts and Humanities		**16**
Lower-division Area C courses must come from 3 different subject prefixes		
C1	Arts[7]	4
C2	Humanities[7]	4
Lower-Div. C Elect.: C1 or C2[7]		4
Upper-Division C		4
Area D Social Sciences		**16**
D1	American Inst. (Title 5/40404)	4
Courses in D2 must come from 2 different subject prefixes		
D2	Lower-Division[8]	4
D2	Lower-Division[8]	4
Upper-division D		4
Area E Lifelong Learning and Self-Development		**4**
Lower-Division E		4
GE Electives in Areas C or D		**4**
Select a course from Area C or D; may be lower- or upper- division		
GE Elective (GE Area C or D)		4
GE Elective *(4 units of Area B in Support)* [1]		

FREE ELECTIVES **5-9**

[1] Required in Major/Support; also satisfies General Education (GE) requirement.

[2] Students should take CHEM 331 as soon as possible after completing CHEM 126.

[3] Consultation with advisor is recommended prior to selecting Advanced Electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

[4] No more than 6 units may apply to Advanced Chemistry Electives.

[5] No more than 2 units may aply to Advanced Chemistry Electives.

[6] If a GE course is used to satisfy a Major or Support requirement, additional Free Elective units may be needed to complete the total units required for the degree.

[7] C1, C2, and C elective must come from three different subject prefixes.

[8] Second D2 must be a different subject prefix from the first D2.

ADVANCED CHEMISTRY ELECTIVES or POLYMERS AND COATINGS CONCENTRATION

ADVANCED CHEMISTRY ELECTIVES[3]

Select 15 units of Advanced Chemistry Electives *or declare and follow the 18-unit Polymers & Coatings Concentration*

BIO/CHEM 308[4,6] or CHEM 349[6] or ENVE 324[6] or SCM 335[6] or SCM 360[6]
BIO/CHEM 441 Bioinformatics Applications
BIO/CHEM 475 Molecular Biology Laboratory
CHEM 252 Laboratory Glassblowing
CHEM 302 Marine Chemistry
CHEM 341 Environmental Chemistry: Water Pollution
CHEM 372 Metabolism
CHEM 373 Molecular Biology
CHEM 377 Chemistry of Drugs and Poisons
CHEM 401 Advanced Undergraduate Research[4]
CHEM 405 Advanced Physical Chemistry
CHEM 414 Advanced Organic Chemistry - Mechanisms
CHEM 419 Bioorganic Chemistry
CHEM 420 Advanced Organic Chemistry - Synthesis
CHEM 428 Nutritional Biochemistry
CHEM 444 Polymers & Coatings I
CHEM 445 Polymers & Coatings II
CHEM/MATE 446 Surface Chemistry of Materials
CHEM 447 Polymers and Coatings Laboratory I
CHEM 448 Polymers and Coatings Laboratory II
CHEM 449 Polymers and Coatings Internship
CHEM 450 Polymers and Coatings III
CHEM 451 Polymers and Coatings Laboratory III
CHEM 454 Functional Polymeric Materials
CHEM 458 Instrumental Organic Qualitative Analysis
CHEM 463 Honors Research
CHEM 465 College Teaching Practicum
CHEM 466 Learning Assistant Seminar
CHEM 470 Selected Advanced Topics
CHEM 474 Protein Techniques Laboratory
CHEM 477 Biochemical Pharmacology
CHEM 485 Cooperative Education Experience[5]
CHEM 495 Cooperative Education Experience[5]
SCM 302/ENGR 322 The Learn By Doing Lab Teaching Practicum

POLYMERS AND COATINGS CONCENTRATION

CHEM 444 Polymers & Coatings I ……..	3
CHEM 445 Polymers & Coatings II……..	3
CHEM 446 Surface Chemistry of Materials…….	3
CHEM 447 Polymers and Coatings Laboratory I…….	2
CHEM 448 Polymers and Coatings Laboratory II…….	2
CHEM 450 Polymers and Coatings III……..	3
Select one course from the following: ……..…..	2
CHEM 449 Polymers and Coatings Internship	
CHEM 451 Polymers and Coatings Laboratory III	
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