2011-13 Cal Poly Catalog
Chemistry & Biochemistry Department

BS CHEMISTRY

- 60 units upper division
- 2.0 GPA
- GWR
- USCP

* = Required in Major/Support; also satisfies GE

Course sequencing: See flowcharts at www.csmadvising.calpoly.edu

Note: No major, support or concentration courses may be taken as credit/no credit.

MAJOR COURSES

CHEM 127 General Chemistry (B3 & B4)* ............ 4
CHEM 128 General Chemistry .................................. 4
CHEM 129 General Chemistry .................................. 4
CHEM 316 Organic Chemistry I ................................ 5
CHEM 317 Organic Chemistry II ................................ 5
CHEM 318 Organic Chemistry III .............................. 3
CHEM 319 Advanced Organic Chemistry Lab ............ 2

1. CHEM 331 Quantitative Analysis .......................... 5
2. CHEM 351 Physical Chemistry I ............................ 3
3. CHEM 352 Physical Chemistry II ............................ 3
4. CHEM 353 Physical Chemistry III .......................... 3

1 Select 15 units from the below list of advanced chemistry electives (a minimum of three courses from List B) or Polymers and Coatings Concentration to complete major ............................. 15/18

Advanced Chemistry Electives (10/25/11)

List A
CHEM 252, 341, 349, 372, 373, 377, 400\textsuperscript{1}, 401\textsuperscript{5}, 447, 448, 449, 465, 474, 477, 478, 485\textsuperscript{1}, 495\textsuperscript{2}, 528;
BIO/CHEM 375, 441;
PSC/BIO 424; SCM 325, 451

List B (Select at least 3 courses)

CHEM 405, 414, 419, 420, 444, 445, 446, 458, 463, 470

(11/17/14) 77/80

SUPPORT COURSES

BIO 161 Intro to Cell & Molecular Biology (B2)* ........ 4
MATH 141, 142, 143 Calculus I, II, III (B1)*........... 4,4,4
MATH 241 Calculus IV ........................................... 4
MATH 244 or 200-400 level STAT or CSC course ....... 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

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GENERAL EDUCATION (GE)
72 units required, 16 of which are specified in Major/Support.
See page 39 for complete GE course listing.
Minimum of 12 units required at the 300 level.

Area A Communication (12 units)
A1 Expository Writing ........................................... 4
A2 Oral Communication ......................................... 4
A3 Reasoning, Argumentation, and Writing .............. 4

Area B Science and Mathematics (no additional units are required)
B1 Mathematics/Statistics * 8 units in Support ...... 0
B2 Life Science * 4 units in Support ....................... 0
B3 Physical Science * 4 units in Major .................... 0
B4 One lab taken with either a B2 or B3 course

Area C Arts and Humanities (20 units)
C1 Literature ...................................................... 4
C2 Philosophy .................................................... 4
C3 Fine/Performing Arts ........................................ 4
C4 Upper-division elective ................................. 4
Area C elective (Choose one course from C1-C4) ..... 4

Area D/E Society and the Individual (20 units)
D1 The American Experience (40404) ..................... 4
D2 Political Economy .......................................... 4
D3 Comparative Social Institutions ......................... 4
D4 Self Development (CSU Area E) ......................... 4
D5 Upper-division elective .................................. 4

Area F Technology Elective (upper division) (4 units) 4

FREE ELECTIVES .................................................. 5-8

180

Concentration
(Students may select the following concentration instead of advanced chemistry electives in Major Courses)

Polymers and Coatings Concentration
CHEM 444 Polymers and Coatings I ....................... 3
CHEM 445 Polymers and Coatings II ...................... 3
CHEM 446 Surface Chemistry of Materials ............... 3
CHEM 447 Polymers and Coatings Lab I .................. 2
CHEM 448 Polymers and Coatings Lab II ................ 2
CHEM 449 Internship in Polymers and Coatings ....... 2
MATE 210 Materials Engineering ......................... 3

1 Students should take CHEM 331 during their second year.
2 SCM 491 only for students pursuing Single-Subject Teaching Credential.
3 Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
4 No more than 2 units may apply to approved advanced chemistry electives.
5 No more than 4 units may apply to approved advanced chemistry electives.