BS CHEMISTRY

2007-09 Cal Poly Catalog

Chemistry & Biochemistry Department
Faculty Offices East Bldg. (25), Room 125B
(805) 756-2693

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

* = Satisfies General Education requirement
Course sequencing: See flowcharts at
www.calpoly.edu/~cosamac

MAJOR COURSES

CHEM 127 General Chemistry (B3 & B4)* ............ 4
CHEM 128 General Chemistry ................................ 4
CHEM 129 General Chemistry ................................ 4
CHEM 313 Survey of Biochemistry and Biotechnology or CHEM 371 Biochemical Principles ....... 5
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
CHEM 331 Quantitative Analysis ........................... 5
CHEM 351 Physical Chemistry I ............................. 3
CHEM 352 Physical Chemistry II ............................ 3
CHEM 353 Physical Chemistry III .......................... 3
CHEM 354 Physical Chemistry Laboratory ............. 2
CHEM 357 Physical Chemistry III Laboratory ...... 1
CHEM 439 Instrumental Analysis ........................... 5
CHEM 459 Undergraduate Seminar (2) or SCM 491 Student Teacher Seminar (1) (1)............... 2
CHEM 461 Senior Project Report ............................. 1
CHEM 481 Inorganic Chemistry ............................. 3
CHEM 484 Inorganic Chemistry Lab ........................ 2
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

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
C5 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

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

TOTAL 180

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

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 See department for advanced electives list.