

Name: _____
 Plan: Chemistry, B.S.
 SubPlan/Option: American Chemical Society
 Min. Units Required: 120 units

Major Required Core 48 units

CHM1210 - General Chemistry I (3) (B1)
 CHM1210L - General Chemistry Laboratory I (1) (B3)
 CHM1220 - General Chemistry II (3) (B1)
 CHM1220L - General Chemistry Laboratory II (1) (B3)
 CHM2210 - Quantitative Analysis (2)
 CHM2210L - Quantitative Analysis Laboratory (2)
 CHM2910A - Chemical Communication Activity (1)
 CHM3140 - Organic Chemistry I (4)
 CHM3140L - Organic Chemistry Laboratory I (1)
 CHM3150 - Organic Chemistry II (3)
 CHM3150L - Organic Chemistry Laboratory II (1)
 CHM3270 - Biochemistry I (3)
 CHM3270L - Biochemistry Laboratory I (1)
 CHM3420 - Spectroscopic Methods (1)
 CHM3420L - Spectroscopic Methods Laboratory (1)
 CHM3430 - Separation Methods (1)
 CHM3430L - Separation Methods Laboratory (1)
 CHM3520L - Physical Chemistry Laboratory (2)
 MAT1140 - Calculus I (4) (B4)
 MAT1150 - Calculus II (4) (B4)
 PHY1510 - Introduction to Newtonian Mechanics (3) (B1)
 PHY1510L - Newtonian Mechanics Laboratory (1) (B3)
 PHY1520 - Introduction to Electromagnetism and Circuits (3)
 PHY1520L - Introductory Laboratory on Electromagnetism and Circuits (1)

Subplan/Option Required Core 24 units

BIO1150 - Basic Biology (3) (B2)
 BIO1150L - Basic Biology Laboratory (1) (B3)
 CHM3110 - Classical Physical Chemistry (3)
 CHM3120 - Quantum Physical Chemistry (3)
 CHM3440 - Electroanalytical Methods (1)
 CHM3440L - Electroanalytical Methods Laboratory (1)
 CHM4010 - Inorganic Chemistry (4)
 CHM4220 - Organic Synthesis (2) and
 CHM4220L - Organic Synthesis Laboratory (2)
 OR
 CHM4230 - Physical Organic Chemistry (2) and
 CHM4230L - Physical Organic Chemistry Laboratory (2)
 OR
 CHM4240 - Organic Analysis (2) and
 CHM4240L - Organic Analysis Laboratory (2)

MAT2250 - Linear Algebra with Applications to Differential Equations (4)

Subplan/Option Electives 7-9 units

CHM 3XXX/4XXX - Chemistry courses not already counted in Required Major/Option Core (2-4)

CHM4610 - Senior Project I (2)
 CHM4620 - Senior Project II (2)
 CHM4630 - Research Student Seminar (1)

Note(s):

CHM 4610 / CHM 4620 / CHM 4630 recommended for graduate school.

Unrestricted Electives 0-2 units

Select a sufficient number of courses so that the total from "Major Required Core", "Subplan/Option Required Core", "Subplan/Option Electives", "GE", and "Unrestricted Electives" is at least 120 units.

General Education Requirements 48 Units

Students should consult the Academic Programs website

<https://www.cpp.edu/~academic-programs/general-education-course-listings.shtml>

for current information regarding this requirement. Unless specific courses are required, please refer to the list of approved courses under General Education Requirements, Areas A through E.

Area A. English Language Communication and Critical Thinking (9 units)

1. Oral Communication
2. Written Communication
3. Critical Thinking

Area B. Scientific Inquiry and Quantitative Reasoning (12 units)

1. Physical Sciences
2. Life Sciences
3. Laboratory Activity
4. Mathematics/Quantitative Reasoning
5. Science and Technology Synthesis

Area C. Arts and Humanities (12 units)

1. Visual and Performing Arts
- 2a. Philosophy and Civilization
- 2b. Literature and Language Other than English
3. Arts and Humanities Synthesis

Area D. Social Sciences (12 units)

1. U.S. History and American Ideals
2. U.S. Constitution and California Government
3. Social Sciences: Principles, Methodologies, Value Systems, and Ethics
4. Social Science Synthesis

Area E. Lifelong Learning and Self-Development (3 units)

Interdisciplinary General Education 21 Units

An alternate pattern for partial fulfillment of GE Areas A, C, and D available for students is the Interdisciplinary General Education (IGE) program. Students should see an advisor for specific GE coursework required by their major. Please refer to the University Catalog General Education Program section for additional information.

How IGE fulfills General Education Requirements:

Year	Completion of IGE Courses	Satisfies GE Requirements
Freshman	IGE 1100, IGE 1200	A2 and C2b
Sophomore	IGE 2100, IGE 2200	C1 and C2a
Junior	IGE 2300, IGE 2400	D1 and D3
Senior	IGE 3100	C3 or D4

American Institutions 6 Units

Courses that satisfy this requirement may also satisfy GE Area D1 and D2.

American Cultural Perspectives Requirement 3 Units

Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.

Graduation Writing Test

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the semester following completion of 60 units for undergraduates.