



**California State Polytechnic University, Pomona
Degree Curriculum Sheet**

Plan (Major) **CHEMISTRY**

Catalog Year **2014 - 2015**

Name _____

Subplan/Option **Industrial Chemistry**

Minimum Units Required **180**

Student ID _____

Required Core Courses		
Course	Units	
Required of all students. A 2.0 cumulative GPA is required in core courses, including subplan courses, in order to receive a degree in the major.		
General Chemistry & Lab	CHM 121/121L	3/1
General Chemistry & Lab	CHM 122/122L	3/1
General Chemistry & Lab	CHM 123/123L	3/1
Quantitative Analysis & Lab	CHM 221/221L	2/2
Organic Chemistry	CHM 314	3
Organic Chemistry	CHM 315	3
Organic Chemistry	CHM 316	3
Organic Chemistry Lab	CHM 317L	1
Organic Chemistry Lab	CHM 318L	1
Organic Chemistry Lab	CHM 319L	1
Spectroscopic Methods & Lab	CHM 342/342L	2/2
Separation Methods & Lab	CHM 343/343L	2/2
Electroanalytical Methods & Lab	CHM 344/344L	2/2
Physical Chemistry & Lab	CHM 352/352L	1/2
Organic Synthesis & Lab	CHM 422/422L	2/2
or Organic Analysis & Lab	CHM 424/424L	(2/2)
Senior Research Project	CHM 491	3
Senior Research Project	CHM 492	3
Undergraduate Seminar	CHM 493	2
Total Units	55	

Required Subplan/Option Core Courses		
Course	Units	
Elements of Physical Chemistry	CHM 304/304A	3/1
and Elements of Physical Chemistry	CHM 305	3
or Physical Chemistry	CHM 311	(3)
and Physical Chemistry	CHM 312	(3)
and Physical Chemistry	CHM 313	(3)
Elements of Biochemistry & Lab	CHM 321/321L	3/1
or Biochemistry & Lab	CHM 327/327L	(3/1)
or Inorganic Chemistry	CHM 401	(3)
The Chemist in Industry	CHM 340	4
<i>Two courses from the following:</i>		<i>6-8</i>
Inorganic Chemistry	CHM 402	(3)
Polymer Chemistry	CHM 409	(3)
Intro to Colloid and Surface Chemistry	CHM 413	(3)
Bioanalytical Chemistry	CHM 450	(4)
Biochemical Preparations & Lab	CHM 452/452L	(1/2)
Green Chemistry	CHM 459	(4)
Air Pollution Problems	CHM 460	(3)
Total Units	20-25	

Required Support Courses		
Course	Units	
The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet.		
Basic Biology (B2, B3)	BIO 115/115A/115L	3/1/1
Intro to C++	CS 128	4
Analytic Geometry and Calculus I (B4)	MAT 114	4
Analytic Geometry and Calculus II	MAT 115	4
Analytic Geometry and Calculus III	MAT 116	4
General Physics & Lab (B1, B3)	PHY 131/131L	3/1
General Physics & Lab	PHY 132/132L	3/1
General Physics & Lab	PHY 133/133L	3/1
Cooperative Education	SCI 470	4
or Cooperative Education	SCI 471	(2)
and Cooperative Education	SCI 472	(2)
(If a suitable Co-op position is not available, students will take an additional advanced Chemistry elective [consult advisor])		
Statistical Methods in Engr. and Physical Sciences	STA 309	3
Total Units	40	

Elective Support Courses		
Course	Units	
Select a minimum of 6 units from one approved elective package. (See Advisor)		6
Total Units	6	

Unrestricted Electives		
Course	Units	
Select a sufficient number of courses so that the total from "Required Subplan/Option", "Required Support", "GE", and "Unrestricted Electives" is at least 119 units.		0-3
Total Units	0-3	

General Education Requirements	
Area	Units
Area A Communication & Critical Thinking	12
1. Oral Communication	
2. Written Communication	
3. Critical Thinking	
Area B Mathematics & Natural Sciences	16
<i>Select at least one lab course from subarea 1 or 2.</i>	
1. Physical Science	
2. Biological Science	
3. Laboratory Activity	
4. Math/Quantitative Reasoning	
5. Science & Technology Synthesis	
Area C Humanities	16
1. Visual and Performing Arts	
2. Philosophy and Civilization	
3. Literature and Foreign Language	
4. Humanities Synthesis	
Area D Social Sciences	20
1. U.S. History, Constitution, American Ideals	
a. United States History	
b. Introduction to American Government	
2. History, Economics and Political Science	
3. Sociology, Anthropology, Ethnic & Gender Studies	
4. Social Science Synthesis	
Area E Lifelong Understanding & Self Development	4
Total Units	68

American Institutions	
Courses that satisfy this requirement may also satisfy GE Area D1	8

American Cultural Perspectives Requirement	
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.