Plan (Major) **CHEMICAL ENGINEERING**

Subplan/Option

Catalog Year **2015 - 2016**

Minimum Units Required **194**

Name

Student ID

Required Core Courses

Course		Units
Required of all students. A 2.0 cumulative GPA is required in core courses in order to receive a degree in the major.		
Intro to Chemical Engineering & Lab	CHE 131/141L	2/1
Chemical Engineering Analysis & Lab	CHE 132/142L	2/1
Chemical Engineering Data Analysis and Design of Experiments Lab	CHE 143L	1
Stoichiometry I & Lab	CHE 201/211L	3/1
Stoichiometry II & Lab	CHE 202/212L	3/1
Chemical Engineering Thermodynamics I	CHE 302	4
Chemical Engineering Thermodyamics II	CHE 303	4
Kinetics and Reactor Design	CHE 304	4
Momentum Transport	CHE 311	4
Energy Transport	CHE 312	3
Mass Transport	CHE 313	3
Transport Laboratory I	CHE 322L	1
Transport Laboratory II	CHE 333L	1
Unit Operations I & Lab	CHE 425/435L	3/1
Process Controls	CHE 426	3
Process Controls Lab	CHE 436L	1
Chemical Processes Synthesis & Design I & Lab	CHE 441/451L	4/1
Chemical Processes Synthesis & Design II & Lab	CHE 442/452L	3/1
Chemical Processes Synthesis & Design III & Lab	CHE 443/453L	3/1
Undergraduate Project	CHE 463	2
Total Units		**62**

Required Support Courses

Course		Units
The following required support courses should be taken to satisfy the indicated GE requirement to achieve the maximum units to de-		
General Chemistry & Lab (B3)	CHM 121/121L	3/1
General Chemistry & Lab	CHM 122/122L	3/1
General Chemistry	CHM 123	3
Organic Chemistry & Lab	CHM 314/317L	3/1
Organic Chemistry	CHM 315	3
Organic Chemistry	CHM 316	3
Elements of Electrical Engineering & Lab	ECE 231/231L	3/1
Ethical Considerations in Tech and Applied Sci (C4)	IME 402	4
Project Design Principles and Applications (B5)	EGR 481	2
and Project Design Principles and Applications (B5)	EGR 482	2
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
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Differential Equations	MAT 216	4
or Elem Linear Algebra and Diff Equations	MAT 224	(4)
Vector Statics	ME 214	3
Materials Science and Engineering	MTE 207	3
Materials Science and Engineering Lab	MTE 317L	1
Corrosion and Materials Degradation & Lab	MTE 401/401L	3/1
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
Total Units		**78**

Elective Support Courses

Course	Units
Upper Division MTE/CHE Elective	3
Total Units	**3**

General Education Requirments

Area	Units
Area A Communication & Critical Thinking	12
1. Oral Communication	
2. Written Communication	
3. Critical Thinking	
Area B Mathematics & Natural Sciences	16
Select at least one lab course from subarea 1 or 2.	
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	**68**

IGE (G.E. Alternative)

IGE 120	4
IGE 121	4
IGE 122	4
IGE 220	4
IGE 221	4
IGE 222	4
IGE 223	4
IGE 224	4
AREA A1	4
AREA A3	4
AREA B	16
AREA C1, C2 or C3	4
AREA C4	4
AREA D4	4

See University Catalog for information on how IGE meets GE require- ments.

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

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

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.