Plan (Major) \_\_\_\_\_CHEMICAL ENGINEERING

# Subplan/Option

Catalog Year

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

T.

**Required Core Courses** Units Course Introduction to Chemical Engineering CHE 131/141L 2/1 Chemical Engineering Analysis CHE 132/142L 2/1 Chemical Engineering Data Analysis and Design of Experiments Laboratory CHE 143L 1 Stoichiometry I CHE 201/211L 3/1 Stoichiometry II CHE 202/212L 3/1 CHE Thermodynamics I CHE 302 4 CHE Thermodyamics II CHE 303 4 Kinetics and Reactor Design CHE 304 4 Momentum Transport CHE 311 4 3 Energy Transport CHE 312 Mass Transport CHE 313 3 Transport | Lab CHE 322L 1 Transport II Lab CHE 333L 1 Unit Operations I CHE 425/435L 3/1 Process Control CHE 426 3 Process Controls Lab CHE 436L 1 Chem Processes Synthesis & Design I 4/1 CHE 441/451L Chem Processes Synthesis & Design II 3/1 CHE 442/452L Chem Processes Synthesis & Design III 3/1 CHE 443/453L Undergraduate Project CHE 463 2 62 **Total Units** 

Required Support Courses			
Course		Units	
General Chemistry	CHM 121	3	
General Chemistry Lab (B3)	I Chemistry Lab (B3) CHM 121L		
General Chemistry	CHM 122/122L	3/1	
General Chemistry	CHM 123	3	
Organic Chemistry	CHM 314/317L	3/1	
Organic Chemistry	Drganic Chemistry CHM 315		
Organic Chemistry	Drganic Chemistry CHM 316		
Elements of Electrical Engineering	ECE 231/231L	3/1	
Project Design Principles & App. (B5) EGR 481/482		2/2	
Analytic Geometry/Calculus I (B4) MAT 114		4	
Analytic Geometry/Calculus II MAT 115		4	
Analytic Geometry/Calculus III MAT 116		4	
Calculus of Several Variables I	MAT 214	3	
Calculus of Several Variable II MAT 215		3	
Differential Equations MAT 216		4	
or Elem. Linear Algebra and Diff. Equations MAT 224			
Vector Statics ME 214			
Material Science and Engineering MTE 207		3	
Materials Lab	MTE 317L	1	
Corrosion and Materials Degradation	MTE 401/401L	3/1	
General Physics (B1, B3)	eneral Physics (B1, B3) PHY 131/131L		
General Physics	PHY 132/132L	3/1	
General Physics	PHY 133/133L	3/1	
Ethical Considerations in Technology			
and Applied Science (C4)	EGR 402	4	
	Total Units	78	

Elective Support Courses			
Course		Units	
Upper Division MTE/CHE Elective		3	
Select 4 units from any of the following list:		4	
Physical Chemistry	CHM 311	(3)	
Physical Chemistry	CHM 312	(3)	
Physical Chemistry	CHM 313	(3)	
Elements of Biochemistry	CHM 321/321L	(3/1)	
Biochemistry	CHM 327/327L	(3/1)	
Physical Chemistry Lab	CHM 352L	(2)	
Physical Chemistry Lab	CHM 353L	(2)	
	Total Units	7	

General	Education Requirements		IGE (G.E.	
Area		Units	Alternative)	
Area A	Communication & Critical Thinking	12	IGE 120	4
1	Oral Communication		IGE 121	4
2	Written Communication		IGE 122	4
3	Critical Thinking		IGE 220	4
Area B	Mathematics & Natural Sciences	16	IGE 221	4
Select a	t least one lab course from sub-area 1 or 2.		IGE 222	4
1	Physical Science		IGE 223	4
2	Biological Science		IGE 224	4
3	Laboratory Activity		Area A1	4
4	Math/Quantitative Reasoning		Area A3	4
5	Science & Technology Synthesis		Area B	16
Area C	Humanities	16	Area C1,	
1	Visual and Performing Arts		C2 or C3	4
2	Philosophy and Civilization		Area C4	4
3	Literature and Foreign Language		Area D4	4
4	Humanities Synthesis			
Area D	Social Sciences	20	See University	
1	U.S. History, Constitution, American Ideals		Catalog for	
2	History, Economics and Political Science		information on	
3	Sociology, Anthropology, Ethnic & Gender Studies		how IGE meets	
4	Social Science Synthesis		G.E. require	9-
Area E	Lifelong Understanding & Self Development	4	ments.	
	Total Units	68		

## American Institutions

Courses that satisfy this requirement may also satisfy G.E. Area D1

# **American Cultural Perspectives Requirement**

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

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.

Course		GE Area	
General Physics	PHY 131/131L	B1, B3	
and General Chemistry Lab	CHM 121L	B3	
Analytic Geometry/Calculus I	MAT 114	B4	
Project Design Principles & Applications	EGR 481/482	B5	
Ethical Considerations in Tech. & Applied Science	EGR 402	C4	
The remaining GE requirements may be satisfied by any course approved for			
that area.			

No more than 105 community college quarter units or 36 extension credit quarter units may be applied toward a Bachelor's degree.

A minimum 2.0 cumulative GPA is required in core (including option) courses. Cal Poly Pomona courses, and overall work completed in order to receive a degree in this major.

### 2013-2014 Minimum Units Required 198

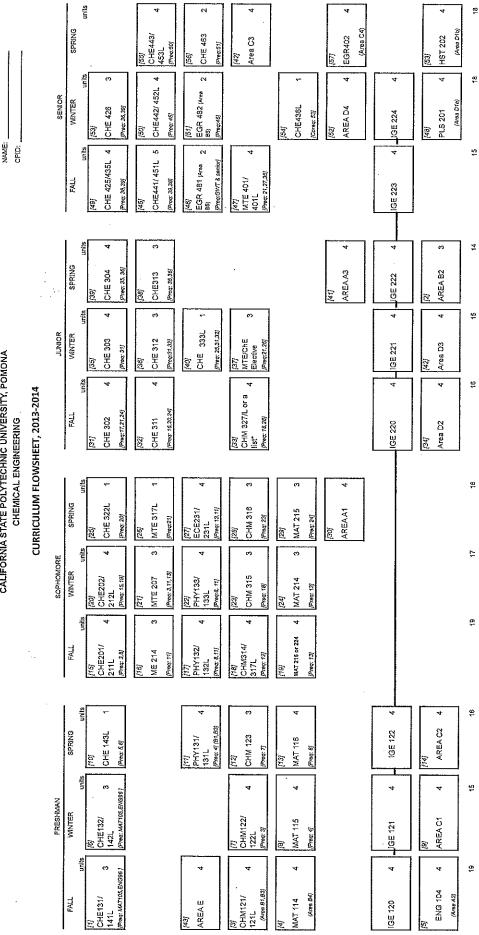
Name Student ID

TGA **GWT** Satisfied

Yes

8

No



Refer to the University Catalog for complete prerequisite and corequisite requirements. \* 4 units from any of the following list: CHM 327/L, CHM 321/L, CHM 311, CHM 312, CHM 352L, CHM 352L, CHM 353L

UNITS

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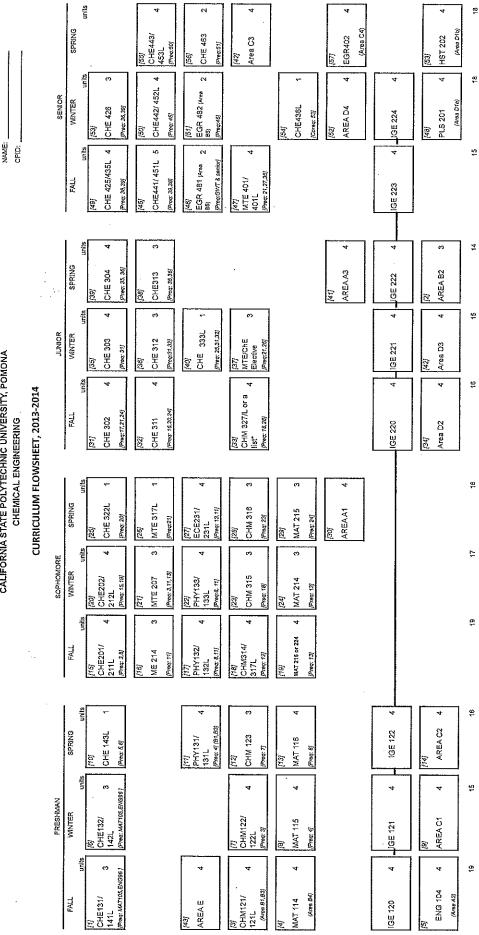
391

<u>TOTAL</u> 198

Revised:11/03/2011

GWT Test available at the completion of 90 units. mandatory at 120 units

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA



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UNITS

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<u>TOTAL</u> 198

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