California State Polytechnic University, Pomona
Degree Curriculum Sheet

Plan (Major) **CHEMICAL ENGINEERING** Catalog Year **2013–2014** Name _____ TGA _____
Subplan/Option _____ Minimum Units Required **198** Student ID _____ GWT Satisfied _____Yes ____No

Required Core Courses

Course		Units
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
Energy Transport	CHE 312	3
Mass Transport	CHE 313	3
Transport I 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	CHE 441/451L	4/1
Chem Processes Synthesis & Design II	CHE 442/452L	3/1
Chem Processes Synthesis & Design III	CHE 443/453L	3/1
Undergraduate Project	CHE 463	2
	Total Units	**62**

Required Support Courses

Course		Units
General Chemistry	CHM 121	3
General Chemistry Lab (B3)	CHM 121L	1
General Chemistry	CHM 122/122L	3/1
General Chemistry	CHM 123	3
Organic Chemistry	CHM 314/317L	3/1
Organic Chemistry	CHM 315	3
Organic Chemistry	CHM 316	3
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	(4)
Vector Statics	ME 214	3
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)	PHY 131/131L	3/1
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

Area	Units	IGE (G.E. 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 at 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, C2 or C3	4
1 Visual and Performing Arts		Area C4	4
2 Philosophy and Civilization		Area D4	4
3 Literature and Foreign Language			
4 Humanities Synthesis			
Area D Social Sciences	**20**	See University Catalog for information on how IGE meets G.E. require-ments.	
1 U.S. History, Constitution, American Ideals			
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 G.E. 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

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.

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA
CHEMICAL ENGINEERING

NAME: _____
CPID: _____

CURRICULUM FLOWSHEET, 2013-2014

	FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING
	units	units	units	units	units	units	units	units	units	units	units	units
	[1] CHE131/ 141L 3 [Preq: MAT105,ENG96]	[6] CHE132/ 142L 3 [Preq: MAT105,ENG96]	[10] CHE 143L 1 [Preq: 5,6]	[15] CHE201/ 211L 4 [Preq: 3,8]	[20] CHE202/ 212L 4 [Preq: 15,19]	[25] CHE 322L 1 [Preq: 20]	[31] CHE 302 4 [Preq:17,21,24]	[35] CHE 303 4 [Preq: 31]	[39] CHE 304 4 [Preq: 35, 36]	[49] CHE 425/435L 4 [Preq: 36,39]	[53] CHE 426 3 [Preq: 36,39]	
				[16] ME 214 3 [Preq: 11]	[21] MTE 207 3 [Preq: 3,11,13]	[26] MTE 317L 1 [Preq:21]	[32] CHE 311 4 [Preq: 16,20,24]	[36] CHE 312 3 [Preq:31,32]	[38] CHE313 3 [Preq: 35,36]	[45] CHE441/ 451L 5 [Preq: 39,38]	[50] CHE442/ 452L 4 [Preq: 45]	[55] CHE443/ 453L 4 [Preq:50]
	[43] AREA E 4		[11] PHY131/ 131L 4 [Preq: 4] (B1,B3)	[17] PHY132/ 132L 4 [Preq: 8,11]	[22] PHY133/ 133L 4 [Preq:8, 11]	[27] ECE231/ 231L 4 [Preq: 13,11]		[40] CHE 333L 1 [Preq: 25,31,32]		[46] EGR 481 (Area B5) 2 [Preq:GWT & senior]	[51] EGR 482 (Area B5) 2 [Preq:46]	[56] CHE 463 2 [Preq:51]
	[3] CHM121/ 121L 4 (Area B1,B3)	[7] CHM122/ 122L 4 [Preq: 3]	[12] CHM 123 3 [Preq: 7]	[18] CHM314/ 317L 4 [Preq: 12]	[23] CHM 315 3 [Preq: 18]	[28] CHM 316 3 [Preq: 23]	[33] CHM 327/L or a list* 4 [Preq: 16,26]	[37] MTE/ChE Elective 3 [Preq:21,26]		[47] MTE 401/ 401L 4 [Preq: 21,27,35]		[42] Area C3 4
	[4] MAT 114 4 (Area B4)	[8] MAT 115 4 [Preq: 4]	[13] MAT 116 4 [Preq: 8]	[19] MAT 215 or 224 4 [Preq: 13]	[24] MAT 214 3 [Preq: 13]	[29] MAT 215 3 [Preq: 24]					[54] CHE436L 1 [Coreq: 53]	
						[30] AREA A1 4			[41] AREA A3 4		[52] AREA D4 4	[57] EGR402 4 (Area C4)
IGE	IGE 120 4	IGE 121 4	IGE 122 4				IGE 220 4	IGE 221 4	IGE 222 4	IGE 223 4	IGE 224 4	
GE	[5] ENG 104 4 (Area A2)	[9] AREA C1 4	[14] AREA C2 4				[34] Area D2 4	[42] Area D3 4	[2] AREA B2 3		[48] PLS 201 4 (Area D1a)	[53] HST 202 4 (Area D1b)
UNITS	19	15	16	19	17	16	16	15	14	15	18	18

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 313, CHM 352L, CHM 353L

☐ GWT Test available at the completion of 90 units, mandatory at 120 units

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TOTAL 198

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA
CHEMICAL ENGINEERING

NAME: _____
CPID: _____

CURRICULUM FLOWSHEET, 2013-2014

	FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING
	units	units	units	units	units	units	units	units	units	units	units	units
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