

CHEMICAL ENGINEERING CURRICULUM 2017-18

Freshman Year

Fall Semester		Spring Semester	
ENGR 1050 Engr Disciplines & Skills I	1	CHE 1300 Intro to Chemical Eng.	3
ENGR 1060 Engr Disciplines & Skills II	1	CH 1020 General Chemistry	4
CH 1010 General Chemistry	4	MATH 1080 Calc of One Variable II	4
ENGL 1030 Accelerated Composition	3	PHYS 1220 Physics with Calculus I	3
MATH 1060 Calculus of One Variable I	4	Arts and Humanities/Social Science ¹	3
Arts and Humanities/Social Science ¹	3	<i>Semester Totals:</i>	17
<i>Semester Totals:</i>	16		

Optional Summer Semester

CHE 1300 Intro to Chemical Eng. (online) 3

Sophomore Year

CHE 2110 Mass and Energy Balances	4	CHE 2200 Chem Engr Thermodynamics I	3
CH 2230 Organic Chemistry	3	CHE 2300 Fluids/Heat Transfer	4
MATH 2060 Calc of Several Variables	4	CH 2240 Organic Chemistry	3
PHYS 2210 Physics with Calculus II	3	CH 2290 Organic Chemistry Lab	1
Arts and Humanities/Social Science ¹	3	MATH 2080 Intro to Ord Diff Eqns	4
<i>Semester Totals:</i>	17	<i>Semester Totals:</i>	15

Junior Year

CHE 3210 Chem Eng Thermodynamics II	3	CHE 3070 Unit Operations Lab I	3
CHE 3300 Mass Transfer/Separations	4	CHE 3190 Engineering Materials	3
STAT 4110 Statistical Methods	3	CH 3320 Physical Chemistry	3
CH 3390 Physical Chemistry Lab	1	CH 3400 Physical Chemistry Lab	1
ECE 2070 Basic Electrical Engr	2	BMOL 4250 Biomolecular Engr	3
ECE 2080 Electrical Engr Lab I	1	Arts and Humanities/Social Science ¹	3
Emphasis Area ²	3	<i>Semester Totals:</i>	16
<i>Semester Totals:</i>	17		

Optional Summer Semester

CHE 3070 Unit Operations Lab I 3
 CHE 3210 Chem Eng Thermodynamics II 3
 CHE 3300 Mass Transfer/Separations 4

Senior Year

CHE 4070 Unit Operations Lab II	3	CHE 3530 Process Dynamics/Control	3
CHE 4310 Chemical Process Design I	3	CHE 4330 Process Design II	3
CHE 4430 Safety, Env. & Prof. Prac. I	2	CHE 4440 Safety, Env. & Proc. Prac. II	1
CHE 4500 Chemical Reaction Engr	3	BMOL 4290 Bioprocess Engineering	3
Arts and Humanities/Social Science	3	Arts and Humanities/Social Science ¹	3
Emphasis Area ²	3	Emphasis Area ²	3
<i>Semester Totals:</i>	17	<i>Semester Totals:</i>	16

Total: 131 Hours

Notes:

¹ See Policy on Social Sciences and Humanities for Engineering Curricula. Six of these credit hours must also satisfy the Cross-Cultural Awareness and Science and Technology in Society Requirements.

² See advisor for details. Nine credit hours devoted to completion of an emphasis area or approved minor is required. Emphasis areas are these: Applied Engineering, Mathematics & Science; Biomolecular Science & Engineering; Polymeric Materials; Energy Studies; Environmental Engineering & Science; Business Management. Emphasis area courses may not be used to satisfy other CHE degree requirements.

Note: No student may exceed two attempts, including a W, to complete successfully any CHE course.