

## CHEMICAL ENGINEERING CURRICULUM 2020-2021

### Freshman Year

Fall Semester		Spring Semester	
ENGR 1020 Engr Disciplines & Skills	2	CHE 1300 Intro to Chemical Eng. <sup>2</sup>	3
CH 1010 General Chemistry	4	CH 1020 General Chemistry	4
ENGL 1030 Accelerated Composition	3	MATH 1080 Calc of One Variable II	4
MATH 1060 Calculus of One Variable I	4	PHYS 1220 Physics with Calculus I	3
General Education Requirement	3	Arts and Humanities/Social Science <sup>1</sup>	3
<i>Semester Totals:</i>	<b>16</b>	<i>Semester Totals:</i>	<b>17</b>

### Optional Summer Semester

CHE 1300 Intro to Chemical Eng. (online)<sup>3</sup> 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 <sup>2</sup>	4	CH 2240 Organic Chemistry	3
PHYS 2210 Physics with Calculus II	3	CH 2290 Organic Chemistry Lab <sup>3</sup>	1
Arts and Humanities/Social Science <sup>1</sup>	3	MATH 2080 Intro to Ord Diff Eqns	4
<i>Semester Totals:</i>	<b>17</b>	<i>Semester Totals:</i>	<b>15</b>

### 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	Emphasis Area <sup>4</sup>	3
ECE 2080 Electrical Engr Lab I	1	Arts and Humanities/Social Science <sup>1</sup>	3
BMOL 4250 Biomolecular Engr	3	<i>Semester Totals:</i>	<b>16</b>
<i>Semester Totals:</i>	<b>17</b>		

### 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	3	CHE 4440 Safety, Env. & Proc. Prac. II	1
CHE 4500 Chemical Reaction Engr	3	BMOL 4290 Bioprocess Engineering	3
Emphasis Area <sup>4</sup>	3	Arts and Humanities/Social Science <sup>1</sup>	3
<i>Semester Totals:</i>	<b>15</b>	Emphasis Area <sup>4</sup>	3
		<i>Semester Totals:</i>	<b>16</b>

**Total: 129 Hours**

Notes:

<sup>1</sup> 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.

<sup>2</sup> Must be passed with a grade of C or better.

<sup>3</sup> CG 2270 and CH 2280 may be substituted for CH 2290.

<sup>4</sup> 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.