

# Chemical Engineering

1 <sup>st</sup> YEAR	Session	Course	Chemical Engineering	SH	Pre-Requisite or/Co-Requisite
1 <sup>st</sup> Semester	All	22M:031	Engineering Math I – Single Variable Calculus	4	P: H.S. Algebra & Trigonometry
	F	059:005	Engineering Problem Solving I	3	
	All	004:011	Principles of Chemistry I	4	
	All	010:003	Accelerated Rhetoric (or 010:001 & 010:002)	4	
	F	059:090	First-year Engineering Seminar	1	P: First Semester Standing
<b>Total</b>				<b>16</b>	
2 <sup>nd</sup> Semester	All	22M:032	Engineering Math II – Multivariable Calculus	4	P: 22M:031
	S	059:006	Engineering Problem Solving II	3	C: 22M:031
	F/S	029:081	Introductory Physics I	4	C: 22M:031
	All	22M:033	Engineering Math III – Matrix Algebra	2	C: 22M:032
	All	004:012	Principles of Chemistry II	4	P: 004:011
	S	052:090	CBE Departmental Seminar	0	
<b>Total</b>				<b>17</b>	
1 <sup>st</sup> Semester	All	22M:034	Engineering Math IV – Differential Equations	3	P: 22M:033
	All		General Education Component #1	3	
	All	059:007	Fundamentals of Engineering I – Statics	2	P: 22M:031; C: 029:081, 22M:032
	F/S	059:008	Engineering Fundamentals II – Electrical Circuits	3	C: 22M:034
	All	059:009	Engineering Fundamentals III – Thermodynamics	3	P: 22M:032, 004:011, 029:081
	F	052:041	Process Calculations	3	P: 22M:031
<b>Total</b>				<b>17</b>	
2 <sup>nd</sup> Semester	S	052:103	Chemical Engineering Thermodynamics	3	P: 052:041; 059:009
	S	052:151	Engineering Flow and Heat Exchange	3	P: 052:041
	All	004:121	Organic Chemistry I	3	P: 004:012
	All		General Education Component #2	3	
	All		General Education Component #3	3	
	F/S	052:091	Professional Seminar: Chemical Engineering	0	P: 052:041, Sophomore Standing
<b>Total</b>				<b>15</b>	
1 <sup>st</sup> Semester	F	052:161	Mass Transfer and Separations	3	P: 052:103, 052:151
	F	052:171	Thermodynamics/Transport Laboratory	3	P: 052:103; 052:151; C: 052:161
	All	004:122	Organic Chemistry II	3	P: 004:121
	All	004:141	Organic Chemistry Laboratory	3	P: 004:121; C: 004:122
	All		Elective #1: Statistics Elective	3	
	F/S	052:091	Professional Seminar: Chemical Engineering	0	P: 052:041, Sophomore Standing
<b>Total</b>				<b>15</b>	
2 <sup>nd</sup> Semester	S	052:105	Chemical Reaction Engineering	3	P: 052:161
	S	052:172	Chemical Reaction Engineering/Separations Lab.	2	P: 052:161; 052:171; C: 052:105
	S	052:187	Chemical Process Safety	3	P: 052:151; 052:161; C: 052:105
	All		Elective #2: Additional Elective	3	
	All		Elective #3: Additional Elective	3	
	F/S	052:091	Professional Seminar: Chemical Engineering	0	P: 052:041, Sophomore Standing
<b>Total</b>				<b>17</b>	
1 <sup>st</sup> Semester	F	052:185	Process Dynamics and Control in Design	3	P: 052:105
	F		Advanced Chemical Science Elective #1	3	
	F	052:173	Senior Laboratory Experience	2	P: 052:172
	All		Elective #4: Engineering Elective	3	
	All		Elective #5: Additional Elective	3	
	All	057:015	Materials Science	3	P: 004:011; C: 22M:031
	F/S	052:091	Professional Seminar: Professional Seminar	0	P: 052:041
	<b>Total</b>				<b>17</b>
2 <sup>nd</sup> Semester	S	052:186	Chemical Engineering Process Design	3	P: 052:185, 052:187
	S		Advanced Chemical Science Elective #2	3	
	S		Advanced Chemical Science Elective #3: Lab	3	
	All		Elective #6: Additional Elective	3	
	All		General Education Component #5	3	
	F/S	052:092	Senior Enriching Activities Seminar	0	C: 052:186
<b>Total</b>				<b>15</b>	