

CHEMICAL ENGINEERING CURRICULUM

AY 2021-2022

Fall Term

Spring Term

First Year

<input type="checkbox"/>	EGGG	101	Introduction to Engineering (FYE)	2	<input type="checkbox"/>	CHEG	112	Introduction to Chemical Engineering	3
<input type="checkbox"/>	CHEM	111	General Chemistry	3	<input type="checkbox"/>	CHEM	112	General Chemistry	3
<input type="checkbox"/>	MATH	242	Analytic Geometry & Calculus B	4	<input type="checkbox"/>	MATH	243	Analytic Geometry & Calculus C	4
<input type="checkbox"/>	CISC	106	General Computer Science for Engineers	3	<input type="checkbox"/>	PHYS	207	Fundamentals of Physics I	3
<input type="checkbox"/>	ENGL	110	Seminar in Composition	3	<input type="checkbox"/>	PHYS	227	Fundamentals of Physics Lab I	1
				15	<input type="checkbox"/>			Breadth Requirement Elective 1	3
									17

Second Year

<input type="checkbox"/>	CHEG	231	Chemical Engineering Thermodynamics	3	<input type="checkbox"/>	CHEG	304	Random Variability in Chemical Processes	3
<input type="checkbox"/>	CHEM	220	Quantitative Analysis	3	<input type="checkbox"/>	CHEG	325	Chemical Engineering Thermodynamics II	3
<input type="checkbox"/>	CHEM	221	Quantitative Analysis Laboratory	1	<input type="checkbox"/>	CHEM	444	Physical Chemistry II	3
<input type="checkbox"/>	PHYS	208	Fundamentals of Physics II	3	<input type="checkbox"/>	CHEM	445	Physical Chemistry Laboratory I *	0/1
<input type="checkbox"/>	PHYS	228	Fundamentals of Physics Lab II	1	<input type="checkbox"/>	MATH	305	Applied Math for Biomed, Chem & Biomol E ₁	3
<input type="checkbox"/>	MSEG	201	Materials Science for Engineers	3	<input type="checkbox"/>			Breadth Requirement Elective 3	3
<input type="checkbox"/>			Breadth Requirement Elective 2	3					15/16
				17					

Third Year

<input type="checkbox"/>	CHEG	332	Chemical Engineering Kinetics	3	<input type="checkbox"/>	CHEG	342	Heat and Mass Transfer	3
<input type="checkbox"/>	CHEG	341	Fluid Mechanics	3	<input type="checkbox"/>	CHEG	345	Chemical Engineering Laboratory I	3
<input type="checkbox"/>	CHEM	331	Organic Chemistry	3	<input type="checkbox"/>	CHEM	332	Organic Chemistry or	
<input type="checkbox"/>	CHEM	333	Organic Chemistry Majors Lab I (lecture only)	1/2	<input type="checkbox"/>	CHEM	527	Introductory Biochemistry	3
<input type="checkbox"/>			Technical Elective 1	3	<input type="checkbox"/>			Breadth Requirement Elective 4	3
<input type="checkbox"/>			Technical Elective 2	3	<input type="checkbox"/>			CHEG Elective 1	3
				16/17					15

Fourth Year

<input type="checkbox"/>	CHEG	401	Chemical Process Dynamics and Control	3	<input type="checkbox"/>	CHEG	432	Chemical Process Analysis (DLE & Capstone)	3
<input type="checkbox"/>	CHEG	431	Chemical Process Analysis	3	<input type="checkbox"/>			CHEG Elective 3	3
<input type="checkbox"/>	CHEG	445	Chemical Engineering Laboratory II	3	<input type="checkbox"/>			Technical Elective 3	3
<input type="checkbox"/>			CHEG Elective 2	3	<input type="checkbox"/>			Technical Elective 4 or CHEG Elective 4	3
<input type="checkbox"/>			Breadth Requirement Elective 5	3	<input type="checkbox"/>			Breadth Requirement Elective 6	3
				15					15

Total Credit Hours 126

* If CHEM 333 is taken for two credits, CHEM 445 is not required.

Biology requirement: Students must meet the department's Biology requirement by virtue of a score of 4 or 5 on the AP Biology exam; a score of 6 or 7 on the IB (Higher Level) exam; 3 credits from taking BISC 207; 3 credits from taking CHEM 527, or by taking a course approved by the Chair or the Chair's designee.

Note: Minimum grade of C- is required in all CHEG courses, MATH242/243/305, CISC106, CHEM444, ENGL110 and all Breadth Requirement courses.