

University of Rochester
Department of Chemical Engineering

Academic Curriculum: Class of 2019 and up*

(The position of electives and some of the basic science courses are arbitrary.
The choices shown below balance technical courses and non-technical courses on a semester basis.)

Fall Term

Spring Term

Freshman Year (34 credits)

5	CHM	131	Chemical Concepts I		5	CHM	132 <i>b</i>	Chemical Concepts II
4	MTH	161 <i>c</i>	Calculus I		4	MTH	162 <i>c</i>	Calculus II
4	WRT	105	Primary Writing Requirement		4	PHY	121	Mechanics
<u>4</u>	ChE	150	Green Energy		<u>4</u>	Elective	<i>h</i>	Humanities/Social Science
17					17			

Sophomore Year (37 credits)

4	CHM	203 <i>b</i>	Organic Chemistry I		4	CHM	204 <i>b</i>	Organic CHM II/BIO/EES Equivalent
1	CHM	207 <i>b</i>	Organic Chem. Lab IH (1cr)		4	CHE	116 <i>f</i>	Numerical Methods & Statistics
4	ChE	113	Chemical Process Analysis		4	ChE	243	Fluid Dynamics
4	MTH	164 <i>g</i>	MultiDimensional Calculus		4	MTH	165	Linear Algebra & Differential Equations
<u>4</u>	Elective	<i>h</i>	Social Science/Humanities		<u>4</u>	Elective	<i>h</i>	Humanities/Social Science
17					20			

Junior Year (34 credits)

4	ChE	225	Thermodynamics I		4	ChE	231	Kinetics & Reactor Design
4	ChE	244	Heat & Mass Transfer		4	ChE	250	Separation Processes
4	PHY	122 <i>d</i>	Electricity & Magnetism		3	ChE	246	Laboratory in ChE Principles (3cr)
<u>4</u>	Elective	<i>h</i>	Humanities/Social Science		1	ChE	279	Chemical Engineering Practice (1cr)
16					4	Elective	<i>h</i>	Social Science/Humanities
					<u>2</u>	WRT	273 <i>i</i>	Communicating Your Professional Identity
					18			

Senior Year (29 credits)

4	ChE	226	Thermodynamics II		4	Elective	<i>g</i>	Advanced CHM/BIO/EES Elective
4	ChE	273	ChE Process Design		2	ChE	272	Process Control
3	ChE	255	Lab in ChE Processes		4	Elective	<i>g</i>	Technical
<u>4</u>	Elective		Free Elective		<u>4</u>	Elective	<i>g</i>	Technical
15					14			

TOTAL (134 credits)