

**Chemical Engineering Curriculum**  
Catalog Years 2023+

<b>First Semester</b>	<b>Credits</b>	<b>Second Semester</b>	<b>Credits</b>
CHEM 1127Q: General Chemistry I	4	CHEM 1128Q: General Chemistry II	4
MATH 1131Q: Calculus I	4	MATH 1132Q: Calculus II	4
ENGR 1000: Orientation to Engineering	1	ENGR 1166: Foundations of Engineering	3
CSE 1010: Intro to Computer Programming	3	PHIL 1104: Ethics	3
ENGL 1007: First-Year Writing	4	Elective/GenEd Requirement	3
	16		17
<b>Third Semester</b>	<b>Credits</b>	<b>Fourth Semester</b>	<b>Credits</b>
MATH 2110Q: Multivariable Calculus	4	CHEM 2444: Organic Chemistry II	3
PHYS 1501Q: Engineering Physics I	4	CHEM 2446: Organic Chemistry Lab <sup>1</sup>	1
CHEM 2443: Organic Chemistry I	3	PHYS 1502Q: Engineering Physics II	4
CHEG 2103: Intro to Chemical Engineering	3	MATH 2410Q: Differential Equations	3
Elective/GenEd Requirement	3	CHEG 2111: Thermodynamics I	3
	17	CHEG 2201: CBE Professional Skills I	1
		Elective/GenEd Requirement	3
			18
<b>Fifth Semester</b>	<b>Credits</b>	<b>Sixth Semester</b>	<b>Credits</b>
CHEG 3112: Thermodynamics II	3	CHEG 3240: Junior Design (fka CHEG 3128)	3
CHEG 3120: Transport Phenomena I (fka CHEG 3123)	4	CHEG 3220: Transport Phenomena II (fka CHEG 3124)	4
ENGR 2000+: Engineering Elective	3	CHEG 3151: Process Kinetics	3
MATH 2210Q: Applied Linear Algebra <sup>2</sup>	3	CHEG 3201: CBE Professional Skills II	1
Elective/GenEd Requirement	3	ENGR 2000+: Engineering Elective	3
	16	Elective/GenEd Requirement	3
			17
<b>Seventh Semester</b>	<b>Credits</b>	<b>Eighth Semester</b>	<b>Credits</b>
CHEG 4139 or CHEG 4144: Experimental or In Silico Senior Lab <sup>3</sup>	2	CHEG 4139 or CHEG 4144: Experimental or In Silico Senior Lab <sup>3</sup>	2
CHEG Elective <sup>4</sup>	3	CHEG Elective <sup>4</sup>	3
CHEG 4140: Capstone Design I	3	CHEG 4143W: Capstone Design II	3
CHEG 4145: Chemical Engineering Analysis <sup>5</sup>	3	Elective/GenEd Requirement	3
CHEG 4101: CBE Professional Skills III	1	CHEG 4147: Process Dynamics and Control	3
Elective/GenEd Requirement	3		14
	15		

Second Language Requirement: \_\_\_\_\_

Environmental Literacy Requirement: \_\_\_\_\_ (E)

Writing Requirement outside of CHEG: \_\_\_\_\_ (W)

<sup>1</sup>**Organic Chemistry Lab** is only offered in the Spring for CHEG students.

<sup>2</sup>**MATH 2210Q: Applied Linear Algebra is a prerequisite for CHEG 4145:** Chemical Engineering Analysis. A C- or better in MATH 1132Q is a prerequisite for MATH 2210Q. MATH 2210Q can be used to fulfill an Elective/GenEd requirement.

<sup>3</sup>**Senior Lab:** Students must take two semesters – CHEG 4139 and CHEG 4144.

<sup>4</sup>**Six Credits of CHEG Electives** are satisfied by any 2000+ CHEG course. Research with CHEG faculty (CHEG 4989) is commonly used to satisfy these, but **only 6 credits of CHEG 4989** may be applied toward degree requirements.

<sup>5</sup>**CHEG 4145** will remain listed as CHEG 3145 and count as CHEG 4145 on preliminary plans of study until 2025, per the Office of the Registrar.