

Chemical Engineering (CHEN)

Freshman

Fall	Hours	Spring	Hours
CHEM 1110 General Chemistry I		3 CHEM 1120 General Chemistry for Scientists and Engineers II	3
CHEM 1111 General Chemistry I Laboratory		1 CHEM 1121 General Chemistry II Laboratory	1
ENGL 1100 English Composition I		3 COMP 1230 Introduction to Computing with MATLAB	2
ENGR 1110 Introduction to Engineering		2 ENGL 1120 English Composition II	3
MATH 1610 Calculus I		4 ENGR 1100 Engineering Orientation	0
Core History ¹		3 MATH 1620 Calculus II	4
		PHYS 1600 Engineering Physics I	4
		16	17

Sophomore

Fall	Hours	Spring	Hours
BIOL 1020 Principles of Biology & BIOL 1021 Principles of Biology Laboratory		4 CHEM 2070 Organic Chemistry I	3
CHEN 2100 Principles of Chemical Engineering		4 CHEM 2071 Organic Chemistry I Laboratory	1
MATH 2630 Calculus III		4 CHEN 2AA0 Chemical Engineering Progress Assessment I	0
PHYS 1610 Engineering Physics II		4 CHEN 2610 Transport I	3
		CHEN 2650 Chemical Engineering Applications of Mathematical Techniques	3
		MATH 2650 Linear Differential Equations	3
		CHEN 2110 Chemical Engineering Thermodynamics	3
		16	16

Junior

Fall	Hours	Spring	Hours
CHEM 2080 Organic Chemistry II		3 CHEN 3AA0 Chemical Engineering Progress Assessment II	0
CHEN 3370 Phase and Reaction Equilibria		3 CHEN 3650 Chemical Engineering Analysis	3
CHEN 3600 Computer-Aided Chemical Engineering		3 CHEN 3660 Chemical Engineering Separations	3
CHEN 3620 Transport II		3 CHEN 3700 Chemical Reaction Engineering	3
Core Social Science ¹		3 CHEN 3820 Chemical Engineering Laboratory I	2
		CHEN Technical Elective I	3
		PHIL 1040 Business Ethics	3
		15	17

Senior

Fall	Hours	Spring	Hours
CHEN 4170 Digital Process Control		3 CHEN 4470 Process Design Practice	3

CHEN 4450 Process Economics and Safety	3 CHEN Technical Elective 3 or ROTC	3
CHEN 4460 Process Simulation Synthesis and Optimization	2 CHEN Technical Elective 4 or ROTC	3
CHEN 4860 Chemical Engineering Laboratory II	2 Core Fine Arts	3
CHEN Technical Elective II	3 Core Social Science ¹	3
Core Literature	3 UNIV 4AA0 Achieve the Creed	0
	16	15
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Total Hours: 128		

¹ The AU Bulletin lists the University Core Curriculum requirements for students in the College of Engineering. Students must complete a sequence in either Literature or History. Because of the discipline specific requirements for the Humanities courses, it is recommended that a History sequence be completed in the Social Sciences courses.

Electives, Technical Electives: See adviser for approved course listing. At least three (3) hours of Technical Electives must be coursework considered as Engineering Topics.

CHEM 1110, 1111, 1120 and 1121 are preferred, but CHEM 1030, 1031, 1040 and 1041 are acceptable substitutes. Honors sections of all courses will be accepted for this curriculum.