LAMAR UNIVERSITY

Chemical and Biomolecular Engineering B.S. - 4 Year Degree Plan

2025-2026

Lamar University's **Bachelor of Science in Chemical Engineering** prepares you to apply the principles of chemistry, biology, physics and math to solve problems that involve the production or use of chemicals, fuel, drugs, food and many other products. Chemical engineers design processes and equipment for large-scale manufacturing, plan and test production methods and byproducts treatment and direct facility operations.

NOTE: Degree plans may change over a four-year period. This may not be the most current list of course requirements for your program. It is always advised that you check Degree Audit in Banner Self-Serv or your advisor for the most up-to-date degree requirements and to track your progress toward a degree.

FIRST YEAR	Fall		Hours	Grade	Spring		Hours	Grade
	MATH 2413	Calculus and Analytical Geometry I	4		MATH 2414	Calculus and Analytical Geometry II	4	
	Communication		3		CHEM 1312 and CHEM 1112	General Chemistry II and General Chemistry II Laboratory	4	
	CHEM 1311 and CHEM 1111	General Chemistry I and General Chemistry I Laboratory	4		PHYS 2425	University Physics I	4	
	CHEN 1301	Introduction to Chemical Engineering	3		ENGL 1301	Composition I	3	
	HIST 1301	U.S. History I 1763-1877	3					
		Hours	17			Hours	15	

SECOND YEAR	Fall		Hours	Grade	Spring		Hours	Grade
	MATH 2415	Calculus III	4		CHEM 3401	Quantitative Analysis	4	
	PHYS 2426	University Physics II	4		MATH 2320	Ordinary Differential Equations	3	
	CHEM 3311 and CHEM 3111	Organic Chemistry I and Organic Chemistry I Lab	4		PHIL 2306 or PHIL 1370	Ethics or Philosophy of Knowledge	3	
	CHEN 2140	Professional Seminar	1		CHEN 3340	Process Analysis	3	
	CHEN 2300	Chemical Engineering Applied Mathematics	3		CHEN 2374	Thermodynamics I	3	
		Hours	16			Hours	16	

THIRD YEAR	Fall		Hours	Grade	Spring		Hours	Grade
	CHEN 3330	Thermodynamics II	3		CHEN 3320	Heat Transfer	3	
	CHEN 3311	Momentum Transfer	3		CHEN 4410	Reaction Kinetics	4	
	POLS 2301	Intro to American Government I	3		POLS 2302	Intro/American Government II	3	
	INEN 2373	Engineering Economics	3		Technical Elective		3	
	MATH 3370	Introduction to the Theory of Statistical Inference	3		HIST 1302	U.S. History II Since 1877	3	
	Technical Elective		3					
		Hours	18			Hours	16	

FOURTH YEAR	Fall		Hours	Grade	Spring		Hours	Grade
	CHEN 4331	Process Control I	3		CHEN 4332	Process Control II	3	
	CHEN 4320	Mass Transfer	3		CHEN 4150	Process Control Laboratory	1	
	CHEN 4310	Laboratory I	3		CHEN 4340	Plant Design II	3	
	CHEN 4360	Plant Design I	3		CHEN 4350	Advanced Analysis	3	
	Technical Elective		3		Creative Art Core		3	
					Technical Elective		3	
		Hours	15			Hours	16	

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