

COLLEGE OF ENGINEERING

Bachelor of Science, Systems Engineering

Four-Year Academic Map 2026-2027

YEAR 1	Semester 1 Fall			Semester 2 Spring			Total
	ENGI 1100	Introduction to Engineering	1	ENGI 1331	Computing for Engineers	3	
	CHEM 1311	Fundamentals of Chemistry*	3	MATH 2414	Calculus II*	4	
	CHEM 1111	Fundamentals of Chemistry Lab	1	PHYS 2325	University Physics I*	3	
	ENGL 1301	First Year Writing I*	3	ENGL 1302	First Year Writing II*	3	
	MATH 2413	Calculus I*	4	CORE	American History*	3	
	GOVT 2306	U.S. Government*	3				
	Semester Hours	15	Semester Hours	16	31		

YEAR 2	Semester 1 Fall			Semester 2 Spring			Total
	INDE 2331	Computer Applications for Industrial Engineers	3	INDE 3333	Engineering Economy I	3	
	GOVT 2305	U.S. & TX Constitution & Politics*	3	CORE	Creative Arts*	3	
	INDE 2333	Engineering Statistics I	3	CORE	Social & Behavioral Sciences*	3	
	MATH 2415	Calculus III	4	ENGI 2304	Technical Communications*	3	
	PHYS 2326	University Physics II	3	MATH 3321	Engineering Mathematics	3	
		Semester Hours	16	Semester Hours	15	31	

YEAR 3	Semester 1 Fall			Semester 2 Spring			Total
	SYSE 3201	Programming for Systems Engineering Applications	2	CORE	American History*	3	
	INDE 3330	Finance and Cost Management	3	INDE 3381	Linear Optimization	3	
	INDE 3364	Engineering Statistics II	3	INDE 4337	Human Factors & Ergonomics	3	
	INDE 3382	Stochastic Modeling	3	SYSE 3365	Applied Model Based Systems Engineering	3	
	SYSE 3301	Fundamentals of Systems Engineering	3	SYSE 3350	Software Systems Engineering	3	
	SYSE 3315	Systems Architecture & Design	3				
	Semester Hours	17	Semester Hours	15	32		

YEAR 4	Semester 1 Fall			Semester 2 Spring			Total
	INDE 4370	Discrete Event Simulation	3	INDE 4315	Supply Chain Management	3	
	INDE 3310	Quality Control and Improvement	3	INDE 4364	Data Analytics	3	
	SYSE 4111	Systems Engineering Seminar	1	SYSE 4340	Human Machine Interaction	3	
	SYSE 4320	Project Management of Complex Systems	3	SYSE 4334	Systems Engineering Capstone Design	3	
	SYSE ELEC	Concentration Elective 1	3	SYSE ELEC	Concentration Elective 2	3	
	CORE	Language, Philosophy, & Culture*	3				
	Semester Hours	16	Semester Hours	15	31		
					125		

*State of Texas Core Curriculum

All Major Courses will be taken out of the UH at Katy Campus. Students should meet with their academic advisor to formulate their personalized graduation plan.

**Awaiting UC approval of Catalog Language