

COLLEGE OF ENGINEERING

Bachelor of Science, Systems Engineering

Four-Year Academic Map 2021-2022

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	Social & Behavioral Sciences*	3	
	HIST 1376/77	The United States To 1877*	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	HIST 1378/79	The United States Since 1877*	3	
	GOVT 2305	U.S. & TX Constitution & Politics*	3	CORE	Creative Arts*	3	
	INDE 2333	Engineering Statistics I	3	GOVT 2306	U.S. Government*	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
	CEA 3201	Computer Programming for Engineers	2	INDE 3333	Engineering Economy I	3	
	INDE 3330	Finance and Cost Management	3	INDE 3381	Linear Optimization	3	
	INDE 3364	Engineering Statistics II	3	INDE 4331	Analysis of Industrial Activities	3	
	INDE 3310	Quality Control and Improvement	3	SYSE 3355	Systems Thinking	3	
	SYSE 3301	Fundamentals of Systems Engineering	3	SYSE 3340	Systems Integration, Verification and Validation	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 3382	Stochastic Modeling	3	INDE 4364	Data Analytics	3	
	SYSE 4111	Systems Engineering Seminar	1	INDE 4337	Human Factors & Ergonomics	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.