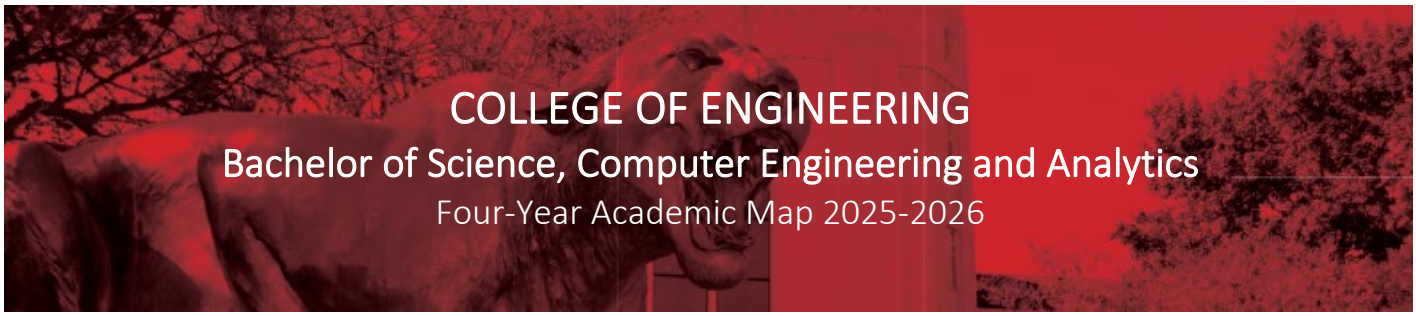

COLLEGE OF ENGINEERING

Bachelor of Science, Computer Engineering and Analytics

Four-Year Academic Map 2025-2026

YEAR 1	Semester 1 Fall			Semester 2 Spring			Total
	CHEM 1111	Fundamentals of Chemistry Lab	1	ENGI 1331	Computing for Engineers	3	
	CHEM 1311	Fundamentals of Chemistry*	3	ENGL 1302	First Year Writing II*	3	
	ENGI 1100	Introduction to Engineering	1	GOVT 2306	U.S. & TX Constitution/Politics*	3	
	ENGL 1301	First Year Writing I*	3	MATH 2414	Calculus II*	4	
	CORE	American History*	3	PHYS 2325	University Physics I*	3	
	MATH 2413	Calculus I*	4	PHYS 2125	University Physics Laboratory I	1	
	Semester Hours		15	Semester Hours		17	32

YEAR 2	Semester 1 Fall			Semester 2 Spring			Total
	ECE 2201	Circuit Analysis I	2	ENGI 2304	Technical Communications*	3	
	MATH 2415	Calculus III	4	ECE 2100	Circuit Analysis Laboratory	1	
	MATH 3321	Engineering Mathematics	3	ECE 2202	Circuit Analysis II	2	
	PHYS 2326	University Physics II	3	ECE 3441	Digital Logic Design	4	
	PHYS 2126	University Physics Laboratory II	1	GOVT 2305	US Government: Congress, President, & Courts*	3	
	CORE	American History *	3	CORE	Creative Arts*	3	
	Semester Hours		16	Semester Hours		16	32

YEAR 3	Semester 1 Fall			Semester 2 Spring			Total
	CEA 3338	Microprocessor Systems	3	ECE 5357	Intro to Cybersecurity	3	
	ECE 3331	Programming Applications in ECE	3	CEA 3312	Fundamentals of Computer Architecture	3	
	INDE 2333	Engineering Statistics	3	CEA 3323	Data Structures & Algorithms	3	
	CEA 3337	Digital Signals and Systems	3	CEA 3421	Introduction to Control Systems	4	
	CORE	Language, Philosophy, & Culture*	3	SYSE 3340	Sys. Integration Verification & Validation	3	
	ECON 2302	Principles of Microeconomics	3				
	Semester Hours		18	Semester Hours		16	34

YEAR 4	Semester 1 Fall			Semester 2 Spring			Total
	CEA 4321	Database Principles and Applications	3	CEA 4355	Engineering Data Analytics	3	
	CEA 4339	Engineering Applications of Graph Theory	3	CEA 4341	Pattern Recognition and Machine Learning	3	
	CEA 4335	Capstone Design I	3	CEA 4336	Capstone Design II	3	
	CEA 4422	Communications & Networking	4	CEA 4342	Robotics & Automation	3	
	CEA 4424	Embedded Computing & Internet of Things	4	CEA 3311	Fundamentals of Operating Systems	3	
	Semester Hours		17	Semester Hours		15	32
							130

***State of Texas Core Curriculum**
All Major Courses (CEA, ECE and ENGI) will be offered at the UH-Katy building
Students should meet with their academic advisor to formulate their own plan.