COLLEGE OF ENGINEERING
Bachelor of Science, Computer Engineering and Analytics
Four-Year Academic Map 2023-2024

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	
HIST 1301	The United States To 1877*	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	
HIST 1302	The United States Since 1877*	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	CEA 3311	Operating Systems for Engineers	3	
CEA 3201	Computer Programming for Engineering	2	CEA 3312	Fundamentals of Computer Architecture	3	
CEA 3302	Fundamentals of Software Engineering	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	INDE 2333	Engineering Statistics I	3	
ECON 2302	Principles of Microeconomics	3				
Semester Hours		17	Semester Hours		16	33

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	ECE 4342	Robotics & Automation	3	
CEA 4424	Embedded Computing & Internet of Things	4	ECE 4444	Intro to Cybersecurity	4	
Semester Hours		17	Semester Hours		16	33
						130

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