

CULLEN COLLEGE OF ENGINEERING

Engineering in Sugar Land

Bachelor of Science, Biotechnology

Four-Year Academic Map 2026-2027

YEAR 1	Semester 1 Fall			Semester 2 Spring			Total
	ENGL 1301	First Year Writing I	3	ENGL 1302	First Year Writing II	3	
MATH 2413	Calculus I	4	MATH 1342	Elem Statistical Methods	3		
BIOL 1306/1106	Biology for Science Majors I	4	BIOL 1307/1107	Biology for Science Majors II	4		
CHEM 1311/1111	General Chemistry I & Lab	4	CHEM 1312/1112	General Chemistry II & Lab	4		
			PHYS 1301	College Phys I	3		
	Semester Hours	15		Semester Hours	17	32	
YEAR 2	Semester 1 Fall			Semester 2 Spring			Total
	*BTEC 1322	Intro to Biotechnology	3	*BTEC 3317	Biotech Regulatory Environment	3	
*BTEC 2322	Introduction to Biopython	3	*BTEC 3302	Molecular Genetics & Biotech	3		
BIOL 2321/2121	Microbiology Science Majors & Lab	4	Core Course	Social & Behavioral Sciences	3		
CHEM 2323/2123	Fund of Organic Chemistry & Lab	4	BCHS 3304	General Biochemistry	3		
CORE	American History	3	GOVT 2306	US & Texas Constitution & Politics	3		
	Semester Hours	17		Semester Hours	15	32	
YEAR 3	Semester 1 Fall			Semester 2 Spring			Total
	*BTEC 3321	Current Good Manufacturing Prac	3	*BTEC 3301	Intro to Bioinformatics	3	
*BTEC 3200	Biotech Research Methods & Apps	2	*ELET 4356 or *CIS 2334	Information Visualization or Information Systems App	3		
*TLIM 3363	Technical Communication	3	*TLIM 3340	Organizational Leadership & Super	3		
PHIL 1305	Introduction to Ethics	3	Core Course	Creative Arts	3		
CORE	American History	3	GOVT 2305	US Government	3		
	Semester Hours	14		Semester Hours	15	29	
YEAR 4	Semester 1 Fall			Semester 2 Spring			Total
	*BTEC 4249	Biotechnology Capstone I	2	*BTEC 4350	Biotechnology Capstone	3	
*BTEC 4301/4101 or *BTEC 4300/4100	Prin of Bioprocessing & Lab OR Applied Bioinformatics & Lab	4	*BTEC 4319 or *ELET 4350	Microbial Biotechnology OR Computational Health Informatics	3		
*BTEC 4320 or Approved elective	Intro to QA/QC in BTEC OR See advisor	3	Approved elective	See advisor	3		
Free Elective	Free Elective	3	Approved elective	See advisor	3		
Free Elective	Free Elective	3					
	Semester Hours	15		Semester Hours	12	27	
						120	

Courses in Bold are important prerequisites and should be taken as early as students are able. *Offered at UH Sugar Land campus. Students should meet with their academic advisor to formulate their own plan.