

**CULLEN COLLEGE OF ENGINEERING
TECHNOLOGY DIVISION**
Bachelor of Science, Biotechnology
Four-Year Academic Map 2024-2025

YEAR 1	Semester 1 Fall			Semester 2 Spring			Total
	ENGL 1301	First Year Writing I	3	ENGL 1302	First Year Writing II	3	
	MATH 2312	Precalculus Math	3	MATH 2413	Calculus I	4	
	BIOL 1306/1106	Biology for Science Majors I	4	BIOL 1307/1107	Biology for Science Majors II	4	
	HIST 1301	U. S. to 1877	3	CHEM 1311/1111	General Chemistry I & Lab	4	
	GOVT 2305	US Government	3				
	Semester Hours		16	Semester Hours		15	31

YEAR 2	Semester 1 Fall			Semester 2 Spring			Total
	CHEM 1312/1112	General Chemistry II & Lab	4	CHEM 2323/2123	Fund of Organic Chemistry & Lab	4	
	BIOL 2321/2121	Microbiology for Sci Majors & Lab	4	Core Course	Creative Arts	3	
	PHIL 1305	Introduction to Ethics	3	HIST 1302	U. S. since 1778	3	
	GOVT 2306	US & Texas Constitution & Politics	3	PHYS 1301	College Phys I	3	
	MATH 1342	Elem Statistical Methods	3	*BTEC 1322	Intro to Biotechnology	3	
	Semester Hours		17	Semester Hours		16	33

YEAR 3	Semester 1 Fall			Semester 2 Spring			Total
	BCHS 3304	General Biochemistry	3	*TLIM 3340	Organizational Leadership & Super	3	
	Core Course	Social & Behavioral Sciences	3	*BTEC 3200	Biotechnology Research Methods and Applications	2	
	*BTEC 2322	Introduction to Biopython	3	*BTEC 3321	Current Good Manufacturing Prac	3	
	*BTEC 3317	Biotechnology Regulatory Environment	3	*BTEC 3301	Prin of Genomics/Proteomics & Bioinformatics	3	
	*TLIM 3363	Technical Communication	3	*BTEC 3302	Molecular Genetics & Biotechnology	3	
	Semester Hours		15	Semester Hours		14	29

YEAR 4	Semester 1 Fall			Semester 2 Spring			Total
	*BTEC 3320	Intro to QA/QC in BTEC	3	*BTEC 4319	Microbial Biotechnology	3	
	or	OR		or	OR		
	Approved elective	See advisor		ELET 4350	Computational Health Informatics		
	*BTEC 4301/4101	Prin of Bioprocessing & Lab	3	Approved elective	See advisor	3	
	or	OR					
	*BTEC 4300/4100	Principles of Bioinformatics & Lab	3	*BTEC 4350	Biotechnology Capstone	3	
*BTEC 4249	Biotechnology Capstone I	2	Free Elective	Free Elective	3		
Free Elective	Free Elective	3					
Semester Hours		12	Semester Hours		12	24	
						120	

Courses in Bold are important prerequisites and should be taken as early as students are able.

*Courses taught in Sugar Land

Students should meet with their academic advisor to formulate their own plan.