CULLEN COLLEGE OF ENGINEERING
TECHNOLOGY DIVISION
Bachelor of Science, Biotechnology
Four-Year Academic Map 2023-2024

YEAR 1

Semester 1 Fall			Semester 2 Spring			Total
BIOL 1306/1106	Biology for Science Majors I	4	BIOL 1307/1107	Biology for Science Majors II	4	
MATH 2312	Precalculus Math	3	CHEM 1311/1111	General Chemistry I & Lab	4	
*BTEC 1322	Intro to Biotechnology	3	MATH 2413	Calculus I	4	
ENGL 1301	First Year Writing I	3	ENGL 1302	First Year Writing II	3	
HIST 1301	U. S. to 1877	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	PHIL 1305	Introduction to Ethics	3	
Core Course	Creative Arts	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	GOVT 2305	US Government	3	
Semester Hours		17	Semester Hours		16	33

YEAR 3

Semester 1 Fall			Semester 2 Spring			Total
BCHS 3304	General Biochemistry	3	*CIS 2334	Information Systems Applications	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	
*BTEC 3302	Molecular Genetics & Biotechnology	3	*TLIM 3363	Technical Communication	3	
Semester Hours		15	Semester Hours		14	29

YEAR 4

Semester 1 Fall			Semester 2 Spring			Total
*BTEC 3320 or ELET 4350	Intro to QA/QC in BTEC **OR** Computational Health Informatics	3	*BTEC 4319 or Approved elective	Microbial Biotechnology **OR** See advisor	3	
Approved Elective	See advisor	3	*BTEC 4301/4101 or *BTEC 4300/4100	Prin of Bioprocessing & Lab **OR** Principles of Bioinformatics & Lab	4	
*TLIM 3340	Organizational Leadership & Super	3	*BTEC 4350	Biotechnology Capstone	3	
*BTEC 4249	Biotechnology Capstone I	32	Free Elective	Free Elective	3	
Free Elective	Free Elective	3				
Semester Hours		14	Semester Hours		13	27
						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.

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