

**Bachelor of Science Degree  
Biotechnology (BIOTECH) Based on Fall 2024-2025 catalog**

First Year		Second Year		Third Year		Fourth Year	
First Semester	Second Semester	Third Semester	Fourth Semester	Fifth Semester	Sixth Semester	Seventh Semester	Eighth Semester
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
ENGL 1301   3   Comm <b>First Year Writing I</b>  P: app score on TSI	ENGL 1302   3   Comm <b>First Year Writing II</b>  P: ENGL 1301 or equivalent	PHIL 1305   3   LP&C <b>Introduction to Ethics</b> (Recommended for core L, P & C)  P: ENGL 1301 or equivalent	3   <b>Creative Arts</b>  Choose from core approved list	3   <b>Social &amp; Behav Sciences</b> Choose from core approved list	*BTEC 3200   2   major <b>Biotechnology Research Methods &amp; Applications</b>  P: C- in BTEC 1322 & BIOL 2321/2121 & enrolled or taken BTEC 3302 & major	*BTEC 3320   3   major <b>BIOMANUFACTURING Intro to QA/QC in BTEC</b>  P: min of C- in BTEC 3317	*BTEC 4319   3   major <b>BIOMANUFACTURING Microbial Biotech</b>  P: Min of C- in BTEC 3200 coreq BTEC 3302
MATH 2312   3   Math <b>Precalculus</b>  P: C- in MATH 1314 or satisfactory score on placement exam	MATH 2413   4   MATH <b>Calculus I</b>  P: C- in MATH 2312 or satisfactory score on placement exam	MATH 1342   3   math/reas <b>Elem Statistical Methods</b>  or PSYC 2317 or TMTH 3360 or MATH 3339 P: None	PHYS 1301   3   NS <b>College Physics I</b>  P: MATH 2312 or equiv	*BTEC 2322   3   math <b>Introduction To Biopython</b>  P: BIOL 1306 or BIOL 1307 or BTEC 1322	*BTEC 3301   3   major <b>Principles of Genomics/ Proteomics &amp; Bioinformatics</b>  P: C- in BTEC 1322 & MATH 1342 & enrolled or taken BTEC 3302	3   major <b>BIOINFORMATICS Approved Elective</b>	ELET 4350   3   major <b>BIOINFORMATICS Computational Health Informatics</b>  P: TLM 3363 or WID
BIOL 1306/1106   4   NS <b>Biology for Sci Majors I &amp; Lab</b> FALL ONLY  P: MATH 1314 or equiv	BIOL 1307/1107   4   major <b>Biology for Sci Majors II &amp; Lab</b> SPRING ONLY  P: MATH 1314 or equiv	BIOL 2321/2121   4   major <b>Microbiology for Sci majors &amp; lab</b>  P: BIOL 1306 & 1307	*BTEC 1322   3   major <b>Introduction to Biotechnology</b>  P: None	*BTEC 3317   3   major <b>Biotechnology Regulatory Environment</b>  P: Min of C- in BTEC 1322	*BTEC 3302   3   major <b>Molecular Genetics &amp; Biotechnology</b>  P: C- in all BIOL 1306/1106, 1307/1107, CHEM 1312 & BTEC 1322	*BTEC 4301/4101   4   major <b>BIOMANUFACTURING Prin of Bioprocessing</b>  P: C- in all of BTEC 3200, 3302, 3321, & BCHS 3304	3   major <b>BIOINFORMATICS Prin of Bioinformatics &amp; lab</b> P: C- in BTEC 3301 & enrolled or taken BTEC 4100
HIST 1301   3   Hist <b>The U.S. to 1877</b>  P: None	CHEM 1311/1111   4   NS <b>Fund of Chemistry I &amp; Lab</b>  P: MATH 2312 or equiv	CHEM 1312/1112   4   major <b>Fund Chemistry 2 &amp; Lab</b>  P: MATH 2312 or equiv & CHEM 1311	CHEM 2323/2123   4   major <b>Fundamentals of Organic Chemistry I &amp; Lab</b>  P: CHEM 1312/1112	BCHS 3304   3   major <b>General Biochemistry</b>  P: CHEM 2323	*BTEC 3321   3   major <b>Current Good Manuf Practices</b>  P: Min of C- in BTEC 3317	*BTEC 4249   2   major <b>Biotechnology Capstone I</b>  P: C- min BTEC 3200, BTEC 3301, & BTEC 3302	*BTEC 4350   3   major <b>Biotechnology Capstone II</b>  P: Min of C- in BTEC 4249
GOVT 2305   3   POLS <b>US Government</b>  P: None		GOVT 2306   3   POLS <b>US &amp; Texas Const &amp; Politics</b>  P: None	HIST 1302   3   Hist <b>The U.S. Since 1877</b>  P: None	*TLIM 3363   3   WID <b>Technical Communication</b>  P: ENGL 1302 with C- or better	*TLIM 3340   3   <b>Organizational Leadership &amp; Supervision</b> or HDCS 3300  P: Enrolled or Taken TLM 3363	ELET 4356   3   <b>Info Visualization in ET</b> P: ELET 2300 or BTEC 2322 <b>OR CIS 2334 Info Sys Apps</b> P: None	3   <b>Free Elective</b>
<b>16</b>	<b>15</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>15</b>	<b>12</b>

Total credit hours required = **120**

**Approved Electives:** BCHS 4306, 4324, 4325  
BIOL 3306, 4310, 4323, 4365, 4366, 4367, 4374  
CIS 3343, 4365  
ELET 4351, 4352  
TLIM 3355, 4342, 4350

**Students must complete either the Biomufacturing or Bioinformatics Track.**  
**Biomufacturing:** BTEC 3320, BTEC 4319, BTEC 4301/4101  
**Bioinformatics:** BTEC 4300/4100, ELET 4350, 3 hrs Approved el

\* taught in Sugar Land  
Core coursework  
College departmental requirements  
major requirements  
free elective

Courses required for Degree are based on catalog year student declares major, please verify this is the correct course sequence.