



# COLLEGE OF TECHNOLOGY

## Bachelor of Science, Biotechnology

### Four-Year Academic Map 2020-2021

| YEAR 1 | Semester 1 Fall                           |   |    | Semester 2 Spring                         |   |    | Total |
|--------|---|---|----|---|---|----|-------|
|        | <b>BIOL 1361/1161</b><br>(BIOL 1306/1106) | <b>Intro to Biological Sciences 1 &amp; Lab</b> | 4  | <b>BIOL 1362/1162</b><br>(BIOL 1307/1107) | <b>Intro to Biological Sciences 2 &amp; Lab</b> | 4  |       |
|        | <b>MATH 1330</b><br>(MATH 2312)           | <b>Precalculus</b>                              | 3  | <b>CHEM 1331/1111</b><br>(CHEM 1311/1111) | <b>Fundamentals of Chemistry &amp; Lab</b>      | 4  |       |
|        | Core Course                               | Communication                                   | 3  | MATH 1431<br>(MATH 2413)                  | Calculus I                                      | 4  |       |
|        | Core Course                               | American History                                | 3  | Core Course                               | Communication                                   | 3  |       |
|        | Core Course                               | Government                                      | 3  |   |   |    |       |
|        | Semester Hours                            |   | 16 | Semester Hours                            |   | 15 | 31    |

| YEAR 2 | Semester 1 Fall                           |   |    | Semester 2 Spring               |   |    | Total |
|--------|---|---|----|---------------------------------|---|----|-------|
|        | <b>CHEM 1332/1112</b><br>(CHEM 1312/1112) | <b>Fundamentals of Chemistry II &amp; Lab</b> | 4  | <b>CHEM 3331/3221</b>           | <b>Fund of Organic Chemistry &amp; Lab</b>          | 5  |       |
|        | <b>BIOL 3332/3132</b><br>(BIOL 3332/3132) | <b>Elementary Microbiology &amp; Lab</b>      | 4  | PHIL 1305                       | Intro to Ethics                                     | 3  |       |
|        | ELET 2300                                 | Intro to C++ Programming                      | 3  | <b>MATH 2311</b><br>(MATH 1342) | <b>Introduction to Probability &amp; Statistics</b> | 3  |       |
|        | *BTEC 1322                                | Intro to Biotechnology                        | 3  | <b>CIS 2334</b>                 | <b>Information Systems Applications</b>             | 3  |       |
|        | Core Course                               | American History                              | 3  | Core Course                     | Government  | 3  |       |
|        | Semester Hours                            |   | 17 | Semester Hours                  |   | 17 | 34    |

| YEAR 3 | Semester 1 Fall  |   |    | Semester 2 Spring |   |    | Total |
|--------|------------------|---|----|-------------------|---|----|-------|
|        | <b>BCHS 3304</b> | <b>General Biochemistry</b>                   | 3  | <b>BCHS 3201</b>  | <b>General Biochemistry Lab</b>                         | 2  |       |
|        | *BTEC 3302       | <b>Molecular Genetics &amp; Biotechnology</b> | 3  | *BTEC 3100        | <b>Biotechnology Research Methods and Applications</b>  | 1  |       |
|        | *BTEC 3317       | <b>Biotechnology Regulatory Environment</b>   | 3  | *BTEC 3321        | <b>Current Good Manufacturing Prac</b>                  | 3  |       |
|        | PHYS 1301/1101   | Intro to General Physics I                    | 4  | *BTEC 3301        | <b>Prin of Genomics/Proteomics &amp; Bioinformatics</b> | 3  |       |
|        | *TLIM 3363       | Technical Communication                       | 3  | *TLIM 3340        | Organizational Leadership & Super                       | 3  |       |
|        | Semester Hours   |   | 16 | Semester Hours    |   | 12 | 28    |

| YEAR 4 | Semester 1 Fall              |   |    | Semester 2 Spring                   |  |         | Total |
|--------|------------------------------|---|----|-------------------------------------|--|---------|-------|
|        | *BTEC 3320<br>or<br>CIS 3343 | Intro to QA/QC in BTEC<br><b>OR</b><br>Info Sys Analysis & Design   | 3  | *BTEC 4319<br>or<br>CIS 3365        | Microbial Biotechnology<br><b>OR</b><br>Database Management              | 3       |       |
|        | Approved Elective            | Options: BCHS 4306, 4324, 4325, BIOL 4310, 4323, 4365, 4366, 4367, 4374; BTEC 3399, 4399; TLIM 4342, 4350 | 3  | *BTEC 4301/4101<br>or<br>*BTEC 4300 | Prin of Bioprocessing & Lab<br><b>OR</b><br>Principles of Bioinformatics | 4 or 3  |       |
|        | Core Course                  | Creative Arts   | 3  | *BTEC 4350                          | Biotechnology Capstone   | 3       |       |
|        | Core Course                  | Social & Behavioral Sciences  | 3  | Free Elective                       | Free Elective  | 3       |       |
|        | Free Elective                | Free Elective   | 3  |                                     |  |         |       |
|        | Semester Hours               |   | 15 | Semester Hours                      |  | 12-13   | 27-28 |
|        |                              |   |    |                                     |  | 120-121 |       |

(Texas Common Course Number) 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.