**Biology: Biotechnology Emphasis 2023-2024**

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| **Freshman Year** | | | | | | | | |
| **Fall** | | | | | **Spring** | | | |
|  | Course Number | Course Title | | Credits |  | Course Number | Course Title | Credits |
|  | UNV 1000 | | Freshman Seminar | 1 |  | ENG 1060\* | Composition II | 3 |
|  | ENG 1050\* | | Composition 1 | 3 |  | CHM 1300\* | General Chemistry | 3 |
|  | BIO 1000\*  (*C or higher required)* | | Principles of Biology | 3 |  | CHM 1100 | General Chemistry Laboratory I | 1 |
|  | BIOL 1000 | | Laboratory Investigations and Experiences in General Biology | 1 |  | MAT 1070\* or  MAT 1090\* | College Algebra or Precalculus | 3 or  4 |
|  | General  Education | | Social Science | 3 |  | General Education | Elective | 3 |
|  | University Wide Elective | |  | 3 |  | University Wide Elective |  | 3 |
|  | General Education | | Physical Education | 1 |  |  |  |  |
| **Total Credits** | | | | 15 |  | **Total Credits** | | 16-17 |

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| **Sophomore Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | BIO 1010 or  BIO 1020 | General Botany or  General Zoology | 4 |  | MAT 2100\* | Introduction to Statistics | 3 |
|  | CHM 1310 | General Chemistry II | 3 |  | BIO 1010 or  BIO 1020 | General Botany or  General Zoology | 4 |
|  | CHM 1110 | General Chemistry Laboratory II | 1 |  | Biotech Emphasis Elective |  | 1-4 |
|  | Biotech Emphasis Elective |  | 1-4 |  | General Education | Social Science | 3 |
|  | General Education | Literature | 3 |  | University Wide Elective |  | 3 |
|  | University Wide Elective |  | 3 |  | General Education | Physical Education | 1 |
| **Total Credits** | | | 15-18 |  | **Total Credits** | | 15-18 |

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| **Junior Year** | | | | | | | |
| Fall | | | | Spring | | | |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | MAT 2150 or  MAT 2210 | Calculus with applications or  Calculus I | 4 |  | BIO 3180 | Principles of Genetics | 4 |
|  | BIO 3040 | Principles of Ecology | 4 |  | MAT 2220 | Calculus II | 4 |
|  | BTEC 3220  (*Fall Odd years only)* | Biotechnology I | 4 |  | BIO 3150 | Microbiology | 4 |
|  | University Wide Elective |  | 3 |  | BTEC 3510  (*Spring Only)* | Bioprocessing | 3 |
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| **Total Credits** | | | 15 | **Total Credits** | | | 15 |

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| **Senior Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | BIO 3710 (WE) | Cell Biology | 4 |  | BTEC 4900  *Taken in last summer* | Internship | 3 |
|  | BIO 4700 (WD) | Reading and Writing in the Natural Sciences | 3 |  | Biotech Emphasis Elective\*\* |  | 3-4 |
|  | Biotech Emphasis Elective |  | 1-4 |  | General Education | Fine Arts | 3 |
|  | General Education | Philosophy and Religion | 3 |  | General Education | History | 3 |
|  | General  Education | Social Science | 3 |  | University Wide Elective |  | 3 |
| **Total Credits** | | | 14-17 | **Total Credits** | | | 15-16 |