**Biology: Biotechnology Emphasis 2023-2024**

|  |
| --- |
| **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 or4 |
|  | GeneralEducation | 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 |

|  |
| --- |
| **Sophomore Year** |
| **Fall** | **Spring** |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | BIO 1010 orBIO 1020 | General Botany orGeneral Zoology | 4 |  | MAT 2100\* | Introduction to Statistics | 3 |
|  | CHM 1310 | General Chemistry II | 3 |  | BIO 1010 or BIO 1020 | General Botany orGeneral 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 |

|  |
| --- |
| **Junior Year** |
| Fall | Spring |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | MAT 2150 orMAT 2210 | Calculus with applications orCalculus 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 |
|  |  |  |  |  |  |  |  |
| **Total Credits** | 15 | **Total Credits** | 15 |

|  |
| --- |
| **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 |
|  | GeneralEducation | Social Science | 3 |  | University Wide Elective |  | 3 |
| **Total Credits** | 14-17 | **Total Credits** | 15-16 |