|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1st Year – Fall Semester** | | | **1st Year – Spring Semester** | | |
| **BIOL 101** | **Opportunities in Biological Sciences** | 1 | **BIOL 115/115L** | **Cells & the Evolution of Life & Lab**  *Prereq:* CHEM 101 or CHEM 111  minimum ‘C’ required to graduate | 4 |
| **BIOL 114** | **Organisms and Environments**  minimum ‘C’ required to graduate | 4 | **CHEM 112/112L** | **Principles of Chemistry II & Lab**  *Prereq:* Chem 111/111L | 5 |
| **CHEM 111/111L** | **Principles of Chemistry I & Lab**  ***Prereq:***math test or min 'C' in CHEM 101, MATH 143 or 170 | 4 | **MATH 175** | **Analytic Geometry and Calculus II**  *Prereq:* min ‘C’ in MATH 170 | 4 |
| **MATH 170** | **Analytic Geometry and Calculus I**  *Prereq:* math test or min ‘C’ in MATH 143 and MATH 144 (co-req possible). | 4 |  | **General Education Course/Elective** | 3 |
| **ENGL 102** | **College Writing and Rhetoric**  *Prereq:* ENGL 101 or test scores | 3 |  |  |  |
|  | **Total Credits** | **16** |  | **Total Credits** | **16** |
| **2nd Year – Fall Semester** | | | **2nd Year – Spring Semester** | | |
| **CHEM 253/254**  *(253 Fall only)* | **Quantitative Analysis & Lab**  *Prereq:* CHEM 112/112L | 5 | **STAT 251** or  **#STAT 301** | **Statistical Methods** or **Probability & Statistics**  *Prereq:* MATH 108, 137, 143, 160, or 170; MATH 175 for STATS 301 | 3 |
| **CHEM 277/278** | **Organic Chemistry I & Lab**  *Prereq:* CHEM 112/112L | 4 | **CHEM 372**  *(Spring only)* | **Organic Chemistry II**  *Prereq:* CHEM 277 | 3 |
| **PHYS 211/211L** | **Engineering Physics I & Lab**  *Prereq:* MATH 170 | 4 | **PHYS 212/212L** | **Engineering Physics II & Lab**  *Prereq:* PHYS 211/211L and MATH 175 | 4 |
|  | **General Education Course/Elective** | 3 |  | **General Education Course/Elective** | 3 |
|  |  |  |  | **Elective as needed\*\***  (see below) | 3 |
|  | **Total Credits** | **16** |  | **Total Credits** | **16** |
| **3rd Year – Fall Semester** | | | **3rd Year – Spring Semester** | | |
| **BIOL 310/315**  *(Fall only)* | **Genetics & Lab**  *Prereq:* BIOL 115/115L or BIOL 250 | 4 | **BIOL 312/313**  *(Spring only)* | **Molecular and Cellular Biology & Lab**  *Prereq:* BIOL 115/115L and BIOL 310/315 or GENE 314 or BIOL 250 | 4 |
| **BIOL 380/382**  *(Fall only)* | **Biochemistry I**  *Prereq:* CHEM 112/112L and CHEM 277 | 6 | **BIOL 454**  *(Spring only)* | **Biochemistry II**  *Prereq:* CHEM 372; BIOL 380 or CHEM 302 or 306 | 3 |
| **ENGL 202 or 207** or **208** or **317 or 318 or 320** | **Writing**  *Prereq:* ENGL 102; 202, Soph. stand.; 317, 318, Junior stand. | 3 |  | **General Education Course/Elective** | 3 |
|  |  |  |  | **General Education Course/Elective** | 3 |
|  |  |  |  | **General Education Course/Elective** | 3 |
|  | **Total Credits** | **13** |  | **Total Credits** | **16** |
| **4th Year – Fall Semester** | | | **4th Year – Spring Semester** | | |
| \*see below | **Biochemistry Elective** | 3 | **BIOL 400** | **Seminar** | 1 |
| **CHEM 302** or  **\*\*CHEM** **305**  *(both Fall only)* | **Principles of Physical Chemistry** or **Physical Chemistry**  *Prereq:* CHEM 112, MATH 170 or 175 and PHYS 111/111L (PPC);CHEM 112/ 112L, MATH 275 and PHYS 212 (PC) | 3 | **Capstone Experience** | **BIOL 401** or **BIOL 407** or **BIOL 408** *(Fall or Spring)*or **BIOL 411** *(Spring only)* | 2 |
|  | **General Education Course/Elective** | 3 | \*see below | **Biochemistry Elective** | ***3*** |
|  | **General Education Course/Elective** | 3 |  | **General Education Course/Elective** | 3 |
|  | **General Education Course/Elective** | 3 |  | **General Education Course/Elective** | 3 |
|  | **Total Credits** | **15** |  | **Total Credits** | **12** |

**\*Biochemistry Electives:** Immunology, Genomics, Neurobiology, Protein Structure and Function, Prokaryotic Molecular Biology, Cellular and Molecular Basis of Disease, Organic Chemistry II Lab, Medicinal Chemistry, Intermediate Organic Chemistry, Genetic Engineering, Bioremediation, Systems Biology, Principals of Physical Chemistry, Physical Chemistry, Physical Chemistry II; Advanced Laboratory Techniques

Additional classes can be substituted with prior approval from advisor and chairperson.