B.S. in BIOCHEMISTRY (Comprehensive Major)

2020 FOUR YEAR CURRICULUM GUIDE
DEPARTMENT OF CHEMISTRY/GEOLOGY/PHYSICS

| Year 1 | Fall Semester |  |  | Year 1 | Spring Semester |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Course \# | Title | Cr. |  | Course \# | Title | Cr. |
| CHEM 103 | Gen. Chem. I (fa only, Core 1) | 4 |  | CHEM 104 | Gen. Chem. II (sp only) | 4 |
| MATH 205 | Calculus I (fa only, Core 2) | 5 |  | MATH 206 | Calculus II (sp only) | 5 |
| BIO 201 | Molec. \& Cellular Basis of Life <br> (Core 3) | 4 |  | BIO 202 | Organisms, Adap. \& Divers. | 4 |
| ENG 101 | Composition I (Core 4) | 3 | ENG 102 | Composition II (Core 5) | 3 |  |
|  | TOTAL | $\mathbf{1 6}$ |  |  | TOTAL | $\mathbf{1 6}$ |


| Year 2 | Fall Semester |  |  | Year 2 | Spring Semester |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Course \# | Title | Cr. | Course \# | Title | Cr. |  |
| CHEM 307 | Organic Chem I (fa only) | 3 |  | CHEM 308 | Organic Chem II (sp only) | 3 |
| CHEM 307L | Organic Chem I Lab (fa only) | 1 |  | CHEM 308L | Organic Chem II Lab (sp only) | 1 |
| PHYS 205 | University Physics (fa only) | 5 |  | PHYS 206 | University Physics (sp only) | 5 |
| CORE/CCI** | Inst. Requirement (Core 6) | 3 | BIO 303 | Genetics | 4 |  |
| CORE | Inst. Requirement (Core 7) | $\mathbf{3}$ | ELECTIVE | General Elective | $\mathbf{3}$ |  |
|  | TOTAL | $\mathbf{1 5}$ |  | TOTAL | $\mathbf{1 6}$ |  |


| Year 3 | Fall Semester |  | Year 3 | Spring Semester |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Course \# | Title | Cr. | Course \# | Title | Cr. |  |
| CHEM <br> 429/429L | Biochemistry w. lab (fa only) | 4 |  | CHEM 439 | Adv. Topics Biochem (sp odd) or <br> General Elective | 3 |
| CHEM 320 | Quant. Analysis (fa only) or <br> CHEM 411/L (fa odd) | 4 | CORE | Inst. Requirement (Core 10) | 3 |  |
| CORE | Inst. Requirement (Core 8) | 3 |  | CORE | Inst. Requirement (Core 11) | 3 |
| CORE | Inst. Requirement (Core 9) | $\mathbf{3}$ | ELECTIVE | General Electives as needed to <br> fulfill required credit hrs | 3-6 |  |
|  | TOTAL | $\mathbf{1 4}$ |  | TOTAL | $\mathbf{1 2 - 1 5}$ |  |


| Year 4 | Fall Semester |  |  | Year 4 | Spring Semester |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Course \# | Title | Cr. |  | Course \# | Title | Cr. |
| CHEM <br> 411/411L | Physical Chem I w. lab (fa <br> odd) or CHEM 320 (fa only) | 4 |  | ELECTIVE | General Elective or CHEM 439 <br> (sp odd) | 3 |
| BIO 424 | Cell Biology (fa only) | 4 |  | CORE | Inst. Requirement (Core 14) | 3 |
| CORE | Inst. Requirement (Core 12) | 3 |  | CORE | Inst. Requirement (Core 15) | 3 |
| CORE | Inst. Requirement (Core 13) | 3 | ELECTIVE | General Electives as needed to <br> fulfill required credit hrs | $3-6$ |  |
|  | TOTAL | $\mathbf{1 4}$ |  | TOTAL | $\mathbf{1 2 - 1 5}$ |  |

## 120 total credit hours required for degree

**The Critical Cultural Inquiry (CCI) requirement can be completed by either one value-added foreign language course, an approved study-away or study abroad experience, or one CCI course. One slot should be allotted for CORE/CCI, but students completing the requirement with study abroad, can substitute an elective if necessary to reach 120 hours. If students are continuing a language study, it is preferable to take the course during the first semester of the first year.

Students planning to attend graduate school should plan on conducting an independent research project (CHEM 497) or participate in a summer research program or internship. Develop a plan for this with your academic adviser.

