B.S. in Environmental Science \& Chemistry (Comprehensive Major) FOUR YEAR CURRICULUM GUIDE
Environmental Science Program / Department of Chemistry, Geology, Physics.
REV:7/11/24

| Year 1 | Fall Semester |  | Freshman: | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | Title | Cr. | Course \# | Title | Cr. |
| ENG 101 | Composition I (Core 1) | 3 | EVS 276 | Environmental Sci. Seminar | 1 |
| CHEM 103 | General Chem (fa only, Core 2) | 4 | ENG 102 | Composition II (Core 5) | 3 |
| MATH 205 | The Calculus I (fa only, Core 3) | 5 | CHEM 104 | $\begin{aligned} & \text { General Chem (sp only, } \\ & \text { Core 6) } \end{aligned}$ | 4 |
| CORE/CCI* | Inst. Requirement (Core 4) | 3 | MATH 206 | The Calculus II (sp only) | 5 |
|  |  |  | CORE/CCI* | Inst. Requirement (Core 7) | 3 |
|  | Total | 15 |  | Total | 16 |


| 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 |
| BIO 201 | Molec./Cellular Basis of Life | 4 | BIO 202 | Organisms, Adap. \& Divers. | 4 |
| CORE | Inst. Requirement (Core 8) | 3 | CORE | Inst. Requirement (Core 9) | 3 |
|  | Total | 16 |  | Total | 16 |


| Year 3 | Fall Semester |  | Year 3 | Spring Semester |  |
| :--- | :--- | :---: | :--- | :--- | :--- | :---: |
| Course \# | Title | Cr. | Course \# | Title | Cr. |
| CHEM 411/L | Quantum Mechanics w. lab <br> (fa odd) or CHEM 4XX <br> elective (1) (fa even) | $3-4$ | CHEM 412/L | Thermodynamics w. lab (sp <br> even) or CHEM 4XX <br> elective (2) (sp odd) | 3-4 |
| MATH | MATH 305** (Calc. III, fa <br> only) or Inst. Requirement <br> (Core 10) | $3-4$ | CORE | Institutional Requirement <br> (Core 10) or MATH 307** <br> Linear Alg., (sp only) | 3 |
| CHEM 320 | Quantitative Analysis (fa <br> only) | 4 | CORE | Market Fundamentals(Core <br> 12) | 3 |
| GEOL 101 | Physical Geology <br> or Applied Ethics <br> - Environment <br> (Core 11 option if 3 credits) | $1-4$ | CORE | Institutional Requirement <br> (Core 13) | 3 |
| CORE | Inst. Requirement (Core 12) | 3 | CORE | Institutional Requirement <br> (Core 14) | 3 |
|  | Total | $\mathbf{1 4 - 1 9}$ |  | Total | $\mathbf{1 5 - 1 6}$ |


| Year 4 | Fall Semester |  | Year 4 | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course \# | Title | Cr. | Course \# | Title | Cr. |
| CHEM 4XX | CHEM Elective (1) (fa even) or 411/L (fa odd) | 3-4 | CHEM 4XX | CHEM elective (2) (sp odd) or $412 / \mathrm{L}$ (sp even) | 3-4 |
| EVS/CHEM ELECTIVE | EVS/CHEM ELECTIVE*** | 3-4 | EVS 476/GPS* | Issues in EVS (sp only, Core 16) | 3 |
| ECON 101 | Institutional Requirement (Core 15) | 3 | ELECTIVE | General Elective | 3 |
| PHIL 280B | Applied Ethics Environment (Core 11 option if 3 credits) or GEOL 101 Physical Geology | 1-4 | ELECTIVE | General Elective | 3 |
| ELECTIVE | General Elective | 3 | ELECTIVE | General Elective (optional) | 3 |
|  | Total | 13-18 |  | Total | 12-16 |

Students must have at least 120-121 credits to graduate, depending on choices of MATH, EVS/CHEM, and 400 -level CHEM electives.

This minimum curriculum includes 9 hours of general electives.
*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.
**Math - MATH 205/206 and either MATH 305 or 307 are required for major.
***Options for EVS/CHEM ELECTIVE include EVS 324 and BIO 310, 330, 411 or 412, and GEOL 210, 309 and 403.

The ACS-Certified Chemistry/Environmental Science major requires CHEM 416, CHEM 420, and 6 additional hours at the 400-level including CHEM 497; GEOL 403 may substitute as a 400 -level Chemistry elective (by permission). Meet with your advisor for further details.

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

