

ENVIRONMENTAL SCIENCE MAJOR

Four-year plan for students starting in even years

This is a suggested program guide. It is not to be interpreted as a contract. Changes may occur.
Please see your program advisor before you register for courses. Updated 1/24

YEAR	FALL	SPRING
First Year (even, odd)	BENV100 Becoming a Scholar 3 Writing Well Competency 3 CEM 121 General Inorganic Chemistry 1 5 MAT 135 Calculus 1 5 (or MAT 114 Pre-calculus – if needed 4) Total 15-16	Reading the Bible Competency 3 Speaking and Listening Competency 3 CEM 122 General Inorganic Chemistry 2 5 BIO 205 Invertebrate Zoology 4 Total 15
Second Year (odd, even)	Creative Expression Competency 3 BIO 330 General Ecology (odd falls only)* 4 CEM 221 Organic Chemistry 1 4 PHY 211 Physics for Science/Engineering 1 5 Total 16	Living Well Competency 2-3 BIO 135 Botany (even springs only)* 4 PHY 212 Physics for Science/ Engineering 2 5 (Electives 3-5) Total 14-17
Third Year (even, odd)	BENV200 Learning in Community 5 Understanding Self and Society Competency 3 NSC 210 Geology and Soils (even falls only)* 4 NSC 107 Global Climate Change 3 Total 15	BENV300 Cross-cultural Experience 3 NSC 220 Hydrology (odd springs only)* 4 BUS 284 General Statistics 3 (Electives 5-6) Total 15-16
Fourth Year (odd, even)	BENV400 Enduring Values Capstone 2 Exploring the Past Competency 3 BIO/CEM elective (take one semester)** 3-5 (Electives) 2-8 Total 12-17	Religious Understanding Competency 3 SOC 430 Environmental Justice (even springs only)* 3 BIO/CEM elective (take one semester)** 3-5 BIO 385 Biology Internship (total over degree) ***3 (Electives 0-11) Total 12-17

*Alternate year courses. Even/odd designation refers to calendar year (NOT to the year in which the academic year began).

**One semester of BIO/CEM elective is required.

***Internship credit can be taken in 1-, 2-, or 3-hour pieces in any fall, spring, or summer semesters. Completion of the degree requires a total of 3 credit hours. Internship options include working at the Bluffton University Nature Preserve, local & county parks, conservation organizations and companies, state and federal organizations, or undergraduate research experience.

Boldface print denotes major course requirement.

Total hours needed to complete graduation requirements are 124. (This includes 2 hours of Arts and Lecture credit.) Total hours of major coursework are 64-66.

BIO/CEM elective options:

- BIO 230 Human Anatomy & Physiology 1 (fall only; pre-req: CEM 105, CEM 121, or PHY 105)
- BIO 231 Human Anatomy & Physiology 2 (spring only; pre-req: BIO 230)
- BIO 335 Cell Biology (fall only; pre-req: CEM 121)
- BIO 301 Microbiology (spring only; pre-req: CEM 121)
- BIO 303 Genetics (even fall only; pre-req: CEM 121)
- CEM 222 Organic Chemistry 2 (spring only; pre-req: CEM 221)
- CEM 230 Analytical Chemistry (spring only; pre-req: CEM 122)
- CEM 341 Biochemistry (odd springs only; pre-req: CEM 221 and one of BIO 230, BIO 335, or CEM 222)
- CEM 326 Physical Chemistry 1 (even fall only; pre-req: CEM 122, PHY 211, MAT 135, MAT 136; recommended: MAT 225 and MAT 350)

Note: The Scientific Inquiry and Critical Analysis competencies are met by the major. In general, competencies may be taken in any order. The exceptions are that Writing Well should be taken in the first year and Reading the Bible must be completed prior to taking the Religious Understanding competency. The timing of the remaining competencies is flexible and may be adjusted to accommodate desired elective courses.