

**Suggested Course of Study for Obtaining a Major in Chemistry with a concentration in Environmental Science**

First Year

Fall

Principles of Structural Chemistry  
Calculus I  
Intro. to Environmental Studies (rec.)  
1 elective

Spring

Principles of Chemical Reactivity  
Calculus II  
Organ. & Ecol. Biology  
1 elective

Summer – A Coe Wilderness Field station experience is highly recommended!

Second Year

Fall

Organic Chemistry I  
Analytical Chemistry (1.5 credits)  
2 electives

Spring

Organic Chemistry II  
Organic Chemistry Laboratory  
2 electives

Third Year

Fall

General Physics I  
Basic Statistics (recommended)  
Field Biology elective  
1 or 2 electives

Spring

Bacteriology or Environmental  
Microbiology (3rd or 4th year)  
General Physics II  
Environmental Analysis  
Seminar in Chemistry I  
1 elective

Fourth Year

Fall

Physical Chemistry I  
Intro to Comp. Sci. (recommended)  
Seminar in Chemistry II  
2 electives

Spring

Advanced Analytical Chem.  
3 electives

## Checklist for a degree in Chemistry with a concentration in Environmental Science

- \_\_\_ CHM-155: Principles of Structural Chemistry
- \_\_\_ CHM-165: Principles of Chemical Reactivity
- \_\_\_ CHM-185: Organic Chemistry I
- \_\_\_ CHM-215: Analytical Chemistry
- \_\_\_ CHM-210: Analytical Chemistry Lab
- \_\_\_ CHM-225: Organic Chemistry II
- \_\_\_ CHM-235: Organic Laboratory
- \_\_\_ CHM-415: Physical Chemistry I
- \_\_\_ CHM 525: Advanced Analytical Chemistry
  
- \_\_\_ CHM-395: Environmental Analysis and CHM-390: Environmental Analysis Laboratory
  
- \_\_\_ BIO 510 and 515, Bacteriology and laboratory
- \_\_\_ **-or-**
- \_\_\_ BIO 530 and 535, Environmental Microbiology and laboratory
  
- \_\_\_ PHY-216: General Physics I
- \_\_\_ PHY-226: General Physics II
- \_\_\_ MTH-145: Calculus II
  
- \_\_\_ CHM-705: Seminar in Chemistry I
- \_\_\_ **-and-**
- \_\_\_ CHM-715: Seminar in Chemistry II
- \_\_\_ **-or-**
- \_\_\_ OR-715,- 725: Study and Research at Oak Ridge Laboratory
- \_\_\_ **-and-**
- \_\_\_ CHM-715: Seminar in Chemistry II
  
- \_\_\_ One of the following:
  - BIO-2\_\_ Spatial Ecology and BIO-2\_\_ Spatial Ecology Laboratory (**highly recommended**)
  - CHM-805: Independent Study
  - BIO-165: Introduction to Ornithology
  - BIO-175: Field Botany
  - BIO-117: Marine Biology
  - BIO-325: Entomology
  - BIO-505: Ecology
  - OCC-XXX: Coe Wilderness Field Station

One semester of statistics is also recommended. Students should elect courses from the Economics, Political Science and Philosophy Departments as part of their General Education program.