

# B.S. Environmental Science: Chemistry Requirements

The major in Environmental Science emphasizes student capacity to engage with interdisciplinary environmental challenges in both the field and laboratory. The major prepares students for graduate work or for a career in professions such as Environmental Consulting, Laboratory Analysis, Water and Wastewater Management, Geospatial Information Technology, Natural Resource Management and Remediation, and Wildlife Conservation. Students majoring in Environmental Science choose from one of the following tracks: Biology, Chemistry, Geography, Geology, and Regenerative Organic Agriculture.

*Note that all students must achieve 120 undergraduate credits and a minimum 2.0 overall GPA to graduate. The final GPA requirement for Environmental Science is 2.0.*

## **Required Environmental Science Core Courses – 20 to 21 credits**

EVSC 100 Introduction to Environmental Science (3 credits)  
EVSC 210 Environmental Geology (3 credits)  
EVSC 220 Environmental Analysis (3 credits)  
EVSC 222 Environmental Biology *or* BIOL 244 Ecology (3-4 credits)  
EVSC 270 Applied Environmental Science (3 credits)  
GEOG 274 Introduction to Geographic Information Systems (3 credits)  
EVSC 380 Senior Seminar (2 credits)

## **Chemistry Track – 24 credits**

*Required + Elective courses.*

*Choice of courses made with advisor from a list maintained by Environmental Science committee.*

CHEM 100 General Chemistry I (4 credits)  
CHEM 102 General Chemistry II (4 credits)  
CHEM 214 Organic Chemistry I (4 credits)  
CHEM 216 Organic Chemistry II (4 credits)  
CHEM 200-level *or* 300-level (4 credits)  
CHEM 300-level (4 credits)

## **Environmental Science Electives – 3 to 4 credits**

*Select 1 course from among the following prefixes: EVSC, CHEM, BIOL, GEOG, GEOL, MATH, PHYS. Choice made with advisor from a list maintained by Environmental Science committee.*

## **Other Required Courses – 11 credits**

BIOL 106 Introduction to Zoology (4 credits) *or* BIOL 108 Introduction to Botany (4 Credits)  
GEOG 10 Planet Earth Users' Guide (3 credits)  
PHYS 100 Physics I (4 credits)

## **Directed General Education Courses – 12 credits**

*These courses are required for the major and satisfy the general education requirement "Understanding Science and Technology."*

BIOL 104 Principles of Biology – Category C1 (4 credits)  
GEOL 100 Physical Geology – Category C2 (4 credits)  
MATH 181 Calculus I – Category C3 (4 credits)

## **University Electives – 14 to 17 credits**

**Program Plan Code:** BS\_EVSC\_CHEM

**Effective Date:** Fall 2024



# BS Environmental Science: Chemistry Check Sheet

Student Name:

Student ID Number:

This check sheet provides a mechanism for students and advisors to keep track of a student's progress in the program. Please refer to the program requirements for more details regarding options.

*Note that all students must achieve 120 undergraduate credits and a minimum 2.0 overall GPA to graduate. The final GPA requirement for Environmental Science: Chemistry is 2.0.*

## Environmental Science Core Courses – 20 to 21 credits

EVSC 100 Introduction to Environmental Science	3 credits	Grade:
EVSC 210 Environmental Geology	3 credits	Grade:
EVSC 220 Environmental Analysis	3 credits	Grade:
EVSC 222 Environmental Biology or		
BIOL 224 Ecology	3-4 credits	Grade:
EVSC 270 Applied Environmental Science	3 credits	Grade:
GEOG 274 Introduction to Geographic Information Systems	3 credits	Grade:
EVSC 380 Senior Seminar	2 credits	Grade:
<b>Total Credits</b>	20-21 total credits	

## Chemistry Track Courses – 24 credits

CHEM 100 General Chemistry I	4 credits	Grade:
CHEM 102 General Chemistry II	4 credits	Grade:
CHEM 214 Organic Chemistry I	4 credits	Grade:
CHEM 216 Organic Chemistry II	4 credits	Grade:
CHEM 200-level or 300-level	4 credits	Grade:
CHEM 300-level	4 credits	Grade:
<b>Total Credits</b>	24 total credits	

## Environmental Science Elective – 3 to 4 credits

*Consult with advisor to choose one course from the approved list from among the following prefixes:  
EVSC/CHEM/BIOL/GEOG/GEOL/MATH/PHYS*

Course:	3-4 credits	Grade:
<b>Total Credits</b>	3-4 credits	

## Other Required Courses – 11 credits

BIOL 106 Introduction To Biology or BIOL 108 Introduction To Botany	4 credits	Grade:
GEOG 10 Plant Earth Users' Guide	3 credits	Grade:
PHYS 100 Physics I	4 credits	Grade:
<b>Total Credits</b>	11 total credits	

## Directed General Education Courses

BIOL 104 Principles of Biology (Category C1)	4 credits	Grade:
GEOL 100 Physical Geology (Category C2)	4 credits	Grade:
MATH 181 Calculus I (Category C3)	4 credits	Grade:

**University Electives – 14 to 17 credits**

Course 1:	credits	Grade:
Course 2:	credits	Grade:
Course 3:	credits	Grade:
Course 4:	credits	Grade:
Course 5:	credits	Grade:
<b>Total Credits</b>	14-17 total credits	

**Summary of Graduation Requirements**

Total credits from major courses	<b>58</b>
Total credits from general education program	<b>45</b>
Total credits from university electives	<b>17</b>
<b>Minimum total credits to graduate</b>	<b>120</b>
<b>Minimum overall GPA</b>	<b>2.0</b>
<b>Minimum GPA in major program</b>	<b>2.0</b>

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# KU B.S. Environmental Science: Chemistry 8-Semester Planner

Student Name:

Student ID Number:

*Each semester listed below provides information including course categories, typical credit hours (CH.), and space to add specific course selections. This planner is a suggested path. Consult with your advisor regarding your unique plans and interests as you make choices about your schedule.*

## **First Semester Plan**

Major	CHEM 100	4 CH.	Selection:
Major	EVSC 100	3 CH.	Selection:
Major	GEOG 10	3 CH.	Selection:
Major	MATH 106 (or other appropriate math course)	3 CH.	Selection:
Gen Ed	FYSM 100	3 CH.	Selection: FYSM100 -
<b>Total</b>		<b>16 CH.</b>	

## **Second Semester Plan**

Major	CHEM 102	4 CH.	Selection:
Gen Ed	BIOL 104 (Category C1)	4 CH.	Selection:
Gen Ed	MATH 181 (Category C2)	4 CH.	Selection:
Gen Ed	Category A1	3 CH.	Selection:
<b>Total</b>		<b>15 CH.</b>	

## **Third Semester Plan**

Major	CHEM 214	4 CH.	Selection:
Major	PHYS 100	4 CH.	Selection:
Major	EVSC 270	3 CH.	Selection:
Gen Ed	GEOG 100 (Category C3)	4 CH.	Selection:
<b>Total</b>		<b>15 CH.</b>	

## **Fourth Semester Plan**

Major	CHEM 216	4 CH.	Selection:
Major	EVSC 210	3 CH.	Selection:
Major	GEOG 274 or BIOL 106	3 or 4 CH.	Selection:
Gen Ed	Category B	3 CH.	Selection:
<b>Total</b>		<b>13-14 CH.</b>	

***Fifth Semester Plan***

Major	CHEM 200-300 level Chemistry Elective	4 CH.	Selection:
Major	BIOL 108 or GEOG 274	4 or 3 CH.	Selection:
Gen Ed	Category A2	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
<b>Total</b>		<b>13-14 CH.</b>	

***Sixth Semester Plan***

Major	EVSC 220	3 CH.	Selection:
Major	EVSC 222 or BIOL 244	3 CH.	Selection:
Major	Environmental Science Elective	3 or 4 CH.	Selection:
Gen Ed	Category A4	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
<b>Total</b>		<b>15-16 CH.</b>	

***Seventh Semester Plan***

Major	CHEM 300-level Chemistry Elective	4 CH.	Selection:
Gen Ed	Category A3	3 CH.	Selection:
Gen Ed	Category B	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
<b>Total</b>		<b>16 CH.</b>	

***Eighth Semester Plan***

Major	EVSC 380	2 CH.	Selection:
Gen Ed	Category B	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
<b>Total</b>		<b>14 CH.</b>	

***Additional Notes:***

1. PHYS 100, PHYS 102, EVSC 210 and EVSC 222 are all offered MWF at 9 am.
2. CHEM 216 and EVSC 220 are both offered MW(F) at 11 am.
3. PHYS 100 is only offered in the Fall semester.
4. PHYS 102, EVSC 220, EVSC 222 and EVSC 380 are only offered in the Spring semester.

**Program Plan Code:** BS\_EVSC\_CHEM

**Effective Date:** Fall 2024