

# ACADEMIC MAP

## Environmental Chemistry Concentration, Bachelor of Science



First Year			Third Year		
<b>Fall</b>			<b>Fall</b>		
UNIV 1101	University Seminar I	1	CHEM 3418	Instrumental Analysis	4
CHEM 1411	General Chemistry I	4	Environmental Chemistry Elective		4
ENGL 1301	Writing and Rhetoric I	3	Environmental Chemistry Elective		4
Biology, Geology, or Environmental Science Course		4	American History Core Requirement		3
Creative Arts Core Requirement		3			
<b>Hours</b>		<b>15</b>	<b>Hours</b>		<b>15</b>
<b>Spring</b>			<b>Spring</b>		
UNIV 1102	University Seminar II	1	CHEM 3417	Quantitative Analysis	4
CHEM 1412	General Chemistry II	4	CHEM 4443	Environmental Chemistry	4
ENGL 1302	Writing and Rhetoric II	3	Environmental Chemistry Elective		4
MATH 2413	Calculus I	4	American History Core Requirement		3
Biology, Geology, or Environmental Science Course		4			
<b>Hours</b>		<b>16</b>	<b>Hours</b>		<b>15</b>
<b>Second Year</b>			<b>Fourth Year</b>		
<b>Fall</b>			<b>Fall</b>		
CHEM 3411	Organic Chemistry I	4	CHEM 4423	Physical Chemistry I	4
MATH 1442	Statistics for Life	4	POLS 2305	U.S. Government and Politics	3
PHYS 1401	General Physics I	4	Social and Behavioral Sciences Core Requirement		3
or PHYS 2425	or University Physics I		Environmental Chemistry Elective		4
Language, Philosophy and Culture Core Elective		3	General Elective		3
<b>Hours</b>		<b>15</b>	<b>Hours</b>		<b>17</b>
<b>Spring</b>			<b>Spring</b>		
CHEM 3412	Organic Chemistry II	4	CHEM 4424	Physical Chemistry II	4
PHYS 1402	General Physics II	4	CHEM 4292	Senior Chemistry Seminar	2
or PHYS 2426	or University Physics II		CHEM 4344	Chemical Oceanography	3
MATH 2414	Calculus II	4	CHEM 4085	Major Field Test in Chemistry	0
Social and Behavioral Sciences Core Requirement		3	Environmental Chemistry Elective		3
<b>Hours</b>		<b>15</b>	POLS 2306	State and Local Government	3
			<b>Hours</b>		<b>15</b>
			<b>Total Hours</b>		<b>123</b>



# CAREER MAP

## Environmental Chemistry-Chemistry Concentration *Bachelor of Science*



The chemistry faculty seeks to provide a high-quality educational experience for students majoring in chemistry in preparation for industrial or government positions, for graduate study, and for entry to medical or dental schools. The program is also designed for those planning to teach chemistry or physics at the 7-12 level, or who need chemical knowledge and skills relevant to future studies in the sciences. The student who wishes to obtain a Bachelor of Science Degree in Chemistry may do so by following one of the four curriculum plans referred to as Concentrations. The options include general, environmental, biochemistry, and physical science education concentrations. Students who are pre-medical, pre-dental, pre-optometry, pre-pharmacy, or pre- veterinary medicine may follow the biochemistry concentration. In addition, the biochemistry concentration offers an option which would allow students to pursue certification in clinical chemistry while obtaining their bachelor's in chemistry.

### CONTACT INFORMATION

**Career Counselor:**

Career and Professional Development Center  
UC 304 | 361.825.2628  
career.center@tamucc.edu

**Internship Coordinator:**

Dr. Fereshteh Billiot  
CS 207 | 361.825.6067  
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**Department Contact:**

Department of Physical and Environmental Sciences  
CS 130D | 361.825.2857  
eugene.billiot@tamucc.edu

### SKILLS/ATTRIBUTES

- Critical Thinking/Problem Solving
- Teamwork/Collaboration
- Professionalism/Work Ethic
- Oral/Written Communication
- Leadership
- Digital Technology
- Career Management
- Global/Multicultural Fluency
- Math

### ADDITIONAL PROGRAM REQUIREMENTS

Every candidate for the BS in Chemistry following the general, environmental, or biochemistry concentration must complete the CHEM 4085 Major Field Test in Chemistry (0 sch) during their senior year, prior to graduation.

### ADDITIONAL SOURCES OF INFORMATION

1. American Chemical Society
2. American Institute of Chemical Engineers
3. American Society of Biochemistry and Molecular Biology

### CAREER OPTIONS

- Environmental Chemist
- Water Quality Analyst
- Air Quality Analyst
- Analytical Chemist
- Environmental Consultant
- Waste Management Specialist
- Environmental Health and Safety Officer
- Chemical Engineer
- Pharmacologist
- Secondary education: (Chemistry Teacher, Physics Teacher)
- Professional School (Medical school, dental school, pharmacy school, optometry, veterinarian school,

### STUDENT ORGANIZATIONS

- Chemistry Club
- SACNAS Chapter at TAMU-CC
- Student Council of Math and Science Teachers

This content is subject to change. Please check our website to receive the most up to date information:  
<https://www.tamucc.edu/institutional-advancement/career-center/>