

ACADEMIC MAP**Chemistry, BS - Grades 7-12
Physical Science Education Concentration
Teaching Certificate**

First Year			Third Year		
Fall			Fall		
UNIV 1101	University Seminar I	1	SMTE 4320	Secondary Science Laboratory Techniques	3
CHEM 1411	General Chemistry I	4	SMTE 4270	Science Education Topics I	2
BIOL 1406	Biology I	4	SMTE 4217	Secondary Approaches to the Life Sciences	2
ENGL 1301	Writing and Rhetoric I	3	READ 3353	Content Area Reading for Secondary	3
EDUC 1354	Child Growth and Development	3	or READ 3352	Students	
				or Content Area Reading for Elementary	
				Students	
	Hours	15	EDUC 3211	Culturally and Linguistically Responsive	2
				Teaching	
Spring			CHEM 3418	Instrumental Analysis	4
UNIV 1102	University Seminar II	1		Hours	16
CHEM 1412	General Chemistry II	4	Spring		
BIOL 1407	Biology II	4	PHYS 3334	Modern Physics I	3
ENGL 1302	Writing and Rhetoric II	3	CHEM 3417	Quantitative Analysis	4
American History Core Requirement		3	CHEM 4423	Physical Chemistry I	4
	Hours	15	CHEM 4443	Environmental Chemistry	4
			BIEM 4357	Methods of Teaching English as a Second	3
Summer				Language	
MATH 2413	Calculus I	4		Hours	18
American History Core Requirement		3	Summer		
	Hours	7	MATH 3315	Differential Equations	3
				Hours	3
Second Year			Fourth Year		
Fall			Fall		
CHEM 3411	Organic Chemistry I	4	EDUC 4305	Seminar I	3
PHYS 2425	University Physics I	4	IDET 3210	Design and Development of Technology-	2
POLS 2305	U.S. Government and Politics	3		Integrated Learning Environments	
EDUC 2211	Foundations of Education	2		Hours	5
Language, Philosophy & Culture Core Requirement		3	Spring		
	Hours	16	EDUC 4694	Clinical Teaching	6
			EDUC 4395	Seminar II	3
Spring				Hours	9
CHEM 3412	Organic Chemistry II	4	Total Hours		
PHYS 2426	University Physics II	4			129
POLS 2306	State and Local Government	3			
MATH 2414	Calculus II	4			
SPED 3310	Individual Differences in Schools and	3			
	Communities				
	Hours	18			
Summer					
Creative Arts Core Requirement		3			
CHEM 4401	Biochemistry I	4			
	Hours	7			

This is not an official degree plan. It is a guideline for planning your courses. To access a copy of this academic map please visit tamucc.edu/academics/planning/academic-advising/



CAREER MAP

CHEMISTRY-GRADES 7-12 PHYSICAL SCIENCE EDUCATION 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:

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Department Contact:

Department of Physical and Environmental Sciences
CS 130D | 361.825.2857
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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.

CAREER OPTIONS

- Academic Researcher
- Analytical Chemist
- Biotechnologist

ADDITIONAL SOURCES OF INFORMATION

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

SKILLS/ATTRIBUTES

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

STUDENT ORGANIZATIONS

- Chemistry Club
- SACNAS Chapter at Texas A&M University - Corpus Christi
- Student Council of Math and Science Teachers