

ACADEMIC MAP

7-12- Grades Chemistry, BS Physical Science Education Concentration Teaching Certification



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 or READ 3352	Content Area Reading for Secondary Students or Content Area Reading for Elementary Students	3
EDUC 1354	Child Growth and Development	3	EDUC 3211	Culturally and Linguistically Responsive Teaching	2
Hours		15	CHEM 3418	Instrumental Analysis	4
Spring			Hours		
UNIV 1102	University Seminar II	1	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
Summer			BIEM 4357	Methods of Teaching English as a Second Language	3
MATH 2413	Calculus I	4	Hours		
American History Core Requirement		3	18		
Hours		7	Summer		
Second Year			MATH 3315	Differential Equations	3
Fall			Hours		
CHEM 3411	Organic Chemistry I	4	3		
PHYS 2425	University Physics I	4	Fourth Year		
POLS 2305	U.S. Government and Politics	3	Fall		
EDUC 2211	Foundations of Education	2	EDUC 4305	Seminar I	3
Language, Philosophy & Culture Core Requirement		3	IDET 3210	Design and Development of Technology- Integrated Learning Environments	2
Hours		16	Hours		
Spring			5		
CHEM 3412	Organic Chemistry II	4	Spring		
PHYS 2426	University Physics II	4	EDUC 4694	Clinical Teaching	6
POLS 2306	State and Local Government	3	EDUC 4395	Seminar II	3
MATH 2414	Calculus II	4	Hours		
SPED 3310	Individual Differences in Schools and Communities	3	9		
Hours		18	Total Hours		
Summer			129		
Creative Arts Core Requirement		3			
CHEM 4401	Biochemistry I	4			
Hours		7			



CAREER MAP

7-12 Physical Science Education – Chemistry Teacher Certification

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
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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

ADDITIONAL SOURCES OF INFORMATION

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

CAREER OPTIONS

- Science Teacher (middle & high school level)
- Academic Researcher
- Analytical Chemist
- Biotechnologist
- Laboratory Technician
- Quality Control Analyst
- Pharmaceutical Sales
- Regulatory Affairs Specialist

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.