

# ACADEMIC MAP

**CHEMISTRY-GRADES 7-12 PHYSICAL SCIENCE EDUCATION CONCENTRATION** | Bachelor of Science



**START HERE** →

SEMESTER 1 - FALL	CREDITS	COMPLETED
UNIV 1101 UNIVERSITY SEMINAR I	1	✓
CHEM 1411 GENERAL CHEMISTRY I	4	
ENGL 1301 WRITING AND RHETORIC I	3	
HIST 1301 U.S. HISTORY TO 1865	3	
BIOL 1406 BIOLOGY I	4	

TOTAL CREDITS: 15

SUMMER 1	CREDITS	COMPLETED
CREATIVE ARTS CORE REQUIREMENT	3	

TOTAL CREDITS: 3

SEMESTER 3 - FALL	CREDITS	COMPLETED
CHEM 3411 ORGANIC CHEMISTRY I	4	
PHYS 2425 UNIVERSITY PHYSICS I	4	
MATH 2413 CALCULUS I	4	
LANGUAGE, PHILOSOPHY & CULTURE CORE REQUIREMENT	3	

TOTAL CREDITS: 15

SUMMER 2	CREDITS	COMPLETED
PSYC 2301 GENERAL PSYCHOLOGY	3	

TOTAL CREDITS: 3

SEMESTER 5 - FALL	CREDITS	COMPLETED
SMTE 4270 SCIENCE EDUCATION TOPICS I	2	
POLS 2306 STATE AND LOCAL GOVERNMENT	3	
CHEM 4407 ADVANCED INORGANIC CHEMISTRY	4	
SMTE 4217 SECONDARY APPROACHES TO THE LIFE SCIENCES	2	
ENGL ELECTIVE	3	

TOTAL CREDITS: 14

SUMMER 3	CREDITS	COMPLETED
CHEM 4401 BIOCHEMISTRY I	4	
EDUC 3311 SCHOOL AND SOCIETY	3	

TOTAL CREDITS: 7

SEMESTER 7 - FALL	CREDITS	COMPLETED
CHEM 4423 PHYSICAL CHEMISTRY I	4	
EDUC 4605 PLANNING, TEACHING, ASSESSMENT AND TECHNOLOGY	6	
EDUC 4311 CLASSROOM MANAGEMENT	3	
SMTE 4320 SECONDARY SCIENCE LABORATORY TECHNIQUES	3	

TOTAL CREDITS: 16

SUMMER 4	CREDITS	COMPLETED
READ 3353 CONTENT AREA READING FOR SECONDARY STUDENTS	3	

SEMESTER 2 - SPRING	CREDITS	COMPLETED
UNIV 1102 UNIVERSITY SEMINAR II	1	
CHEM 1412 GENERAL CHEMISTRY II	4	
BIOL 1407 BIOLOGY II	4	
ENGL 1302 WRITING AND RHETORIC II	3	
HIST 1302 U.S. HISTORY SINCE 1865	3	

TOTAL CREDITS: 15

SEMESTER 4 - SPRING	CREDITS	COMPLETED
CHEM 3412 ORGANIC CHEMISTRY II	4	
PHYS 2426 UNIVERSITY PHYSICS II	4	
POLS 2305 U.S. GOVERNMENT AND POLITICS	3	
MATH 2414 CALCULUS II	4	

TOTAL CREDITS: 15

SEMESTER 6 - SPRING	CREDITS	COMPLETED
PHYS 3334 MODERN PHYSICS I	3	
CHEM 3417 QUANTITATIVE ANALYSIS	4	
MATH 3315 DIFFERENTIAL EQUATIONS	3	
CHEM 4443 ENVIRONMENTAL CHEMISTRY	4	

TOTAL CREDITS: 14

SEMESTER 8 - SPRING	CREDITS	COMPLETED
CHEM 4424 PHYSICAL CHEMISTRY II	4	
EDUC 4321 INSTRUCTIONAL DESIGN FOR SPECIAL POPULATIONS	3	
EDUC 4995 CLINICAL TEACHING	9	
READ 3353 CONTENT AREA READING FOR SECONDARY STUDENTS	3	

TOTAL CREDITS: 16

**136 CREDITS | FINISHED!**



# 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:

Dr. Fereshteh Billiot  
CS 207 | 361.825.6067  
fereshteh.billiot@tamucc.edu

### Department Contact:

Department of Physical and Environmental Sciences  
CS 130D | 361.825.2857  
mark.olson@tamucc.edu

## 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