

**ACADEMIC MAP****Biochemistry/Preprofessional Concentration,  
Bachelor of Science****First Year**

<b>Fall</b>		<b>Hours</b>
UNIV 1101	University Seminar I	1
CHEM 1411	General Chemistry I	4
BIOL 1406	Biology I	4
ENGL 1301	Writing and Rhetoric I	3
HIST 1301	U.S. History to 1865	3
<b>Hours</b>		<b>15</b>

**Spring**

UNIV 1102	University Seminar II	1
CHEM 1412	General Chemistry II	4
BIOL 1407	Biology II	4
ENGL 1302	Writing and Rhetoric II	3
MATH 2413	Calculus I	4
<b>Hours</b>		<b>16</b>

**Second Year****Fall**

CHEM 3411	Organic Chemistry I	4
MATH 1442	Statistics for Life	4
PHYS 1401	General Physics I or PHYS 2425 or University Physics I	4
Language, Philosophy & Culture Core Requirement		3
<b>Hours</b>		<b>15</b>

**Spring**

CHEM 3412	Organic Chemistry II	4
PHYS 1402	General Physics II or PHYS 2426 or University Physics II	4
MATH 2414	Calculus II	4
HIST 1302	U.S. History Since 1865	3
<b>Hours</b>		<b>15</b>

**Third Year****Fall**

CHEM 4401	Biochemistry I	4
POLS 2305	U.S. Government and Politics	3
BIOL 2421	Microbiology	4
CHEM 3418	Instrumental Analysis	4
<b>Hours</b>		<b>15</b>

**Spring**

CHEM 4402	Biochemistry II	4
CHEM 3417	Quantitative Analysis	4
BIOL 2416	Genetics	4
Biochemistry Elective		4
<b>Hours</b>		<b>16</b>

**Fourth Year****Fall**

CHEM 4423	Physical Chemistry I	4
CHEM 4292	Senior Chemistry Seminar	2
POLS 2306	State and Local Government	3
Social and Behavioral Sciences Core Requirement		3
<b>Hours</b>		<b>12</b>

**Spring**

CHEM 4085	Major Field Test in Chemistry	0
Biochemistry Elective		3
Biochemistry Elective		3
Biochemistry Elective		3
Creative Arts Core Requirement		3
Elective to reach 120		4
<b>Hours</b>		<b>16</b>

**Total Hours 120**

# CAREER MAP

## Biochemistry Pre-Professional Concentration-Chemistry *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  
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

- Professional School (Medical school, dental school, pharmacy school, optometry, veterinarian school, chiropractic school, etc.)
- Academic Researcher
- Clinical Scientist/Biochemist
- Analytical Chemist
- Forensic Scientist
- Biotechnologist
- Nanotechnologist
- Chemical Engineer
- Pharmacologist
- Secondary education: (Chemistry Teacher, Physics Teacher)

### STUDENT ORGANIZATIONS

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