

ACADEMIC MAP

BIOLOGY - CELL/MOLECULAR BIOLOGY TRACK
Bachelor of Science



START HERE

1

SEMESTER 1 - FALL	CREDITS	COMPLETED
CHEM 1411 GENERAL CHEMISTRY I	4	✓
UNIV 1101 UNIVERSITY SEMINAR I	1	
BIOL 1406 BIOLOGY I	4	
ENGL 1301 WRITING AND RHETORIC I	3	
HIST 1301 OR HIST 1302 OR HIST 2301 U.S. HISTORY TO 1865 OR U.S. HISTORY SINCE 1865 OR TEXAS HISTORY	3	

TOTAL CREDITS: 15

3

SEMESTER 3 - FALL	CREDITS	COMPLETED
CHEM 3411 ORGANIC CHEMISTRY I	4	
MATH 2413 CALCULUS I	4	
POLS 2305 U.S. GOVERNMENT AND POLITICS	3	
BIOL 2416 GENETICS	4	

TOTAL CREDITS: 15

5

SEMESTER 5 - FALL	CREDITS	COMPLETED
BIOL 3428 PRINCIPLES OF ECOLOGY	4	
BIOL 3410 CELL BIOLOGY	4	
BIOL 2371 PRINCIPLES OF EVOLUTION	3	
BIOLOGY REQUIREMENT	4	

TOTAL CREDITS: 15

7

SEMESTER 7 - FALL	CREDITS	COMPLETED
BIOL 4340 GENOMICS, PROTEOMICS AND BIOINFORMATICS	3	
ECON 1301 OR ECON 2301 OR ECON 2302 OR PSYC 2301 OR SOCI 1301 INTRODUCTION TO ECONOMICS OR MACROECONOMICS PRINCIPLES OR MICROECONOMICS PRINCIPLES OR GENERAL PSYCHOLOGY OR INTRODUCTION TO SOCIOLOGY	3	
ENGL 2316 OR ENGL 2332OR ENGL 2333 OR PHIL 1301 OR PHIL 2306 OR SPAN 3307 OR SPAN 3308 OR SPAN 3309 OR SPAN 3310 LITERATURE AND CULTURE OR LITERATURE OF THE WESTERN WORLD: FROM THE CLASSICS TO THE RENAISSANCE OR LITERATURE OF THE WESTERN WORLD: FROM THE ENLIGHTENMENT TO THE PRESENT OR INTRODUCTION TO PHILOSOPHY OR INTRODUCTION TO ETHICS OR SPANISH LITERATURE I OR SPANISH LITERATURE II OR SPANISH AMERICAN LITERATURE I OR SPANISH AMERICAN LITERATURE II	3	
BIOL 3000:4999	4	

TOTAL CREDITS: 17

2

SEMESTER 2 - SPRING	CREDITS	COMPLETED
CHEM 1412 GENERAL CHEMISTRY II	4	
UNIV 1102 UNIVERSITY SEMINAR II	1	
BIOL 1407 BIOLOGY II	4	
ENGL 1302 OR COMM 1311 WRITING AND RHETORIC II OR FOUNDATION OF COMMUNICATION	3	
HIST 1301 OR HIST 1302 OR HIST 2301 U.S. HISTORY TO 1865 OR U.S. HISTORY SINCE 1865 OR TEXAS HISTORY	3	

TOTAL CREDITS: 15

4

SEMESTER 4 - SPRING	CREDITS	COMPLETED
CHEM 3412 ORGANIC CHEMISTRY II	4	
BIOL 2300 SCIENCE COMMUNICATION	3	
BIOL 2421 MICROBIOLOGY	4	
POLS 2306 STATE AND LOCAL GOVERNMENT	3	
ARTS 1301 OR ARTS 1303 OR MEDA 1305 OR MUSI 1306 OR MUSI 1307 OR THEA 1310 ART AND SOCIETY OR ART HISTORY SURVEY I OR FILM AND CULTURE OR UNDERSTANDING AND ENJOYING MUSIC OR ELEMENTS OF MUSICAL STYLE OR THEATRE APPRECIATION	3	

TOTAL CREDITS: 17

6

SEMESTER 6 - SPRING	CREDITS	COMPLETED
CHEM 4401 BIOCHEMISTRY I	4	
BIOL 3403 MOLECULAR BIOLOGY	4	
MATH 3342 OR BIOL 3325 APPLIED PROBABILITY AND STATISTICS OR BIostatISTICS	3	

TOTAL CREDITS: 11

8

SEMESTER 8 - SPRING	CREDITS	COMPLETED
CHEM 4402 BIOCHEMISTRY II	4	
BIOL 3000:4999	4	
BIOL 3000:4999	4	

TOTAL CREDITS: 16

YEAR 1

YEAR 2

YEAR 3

YEAR 4



CAREER MAP

BIOLOGY - CELL/MOLECULAR BIOLOGY TRACK

Bachelor of Science



The biology program provides diverse training for careers in the biological sciences. The biology curriculum includes content courses required for teacher certification in life science, acceptance to post-graduate studies, and pre-professional studies in preparation for admission to professional schools.

Students will acquire content and skills to enter a variety of biology-related careers such as research, marine biology, wildlife and coastal management, environmental protection, laboratory technician, biotechnology industry, medical or environmental microbiology, technical writing, pharmaceutical sales, careers in the medical, dental, and allied health fields, and science education.

Field and laboratory courses emphasize the development of practical skills in using special materials and equipment. Focus is on enhancement of critical thinking skills, which will prepare the student for careers in the biological sciences as well as in other general areas of employment. The undergraduate biology degree has six tracks, fitting a wide variety of student interests and career goals. These tracks include: Cellular & Molecular Biology, Ecology, Integrative Biology, Marine Biology, Microbiology, Organismal Biology. The biology core provides students with a broad biological background and includes coursework in four key areas:

mathematics, the chemistry of life/cell biology, form and function, and organismal biology. In each of these areas students select one course from a list of appropriate courses, depending on their interests and choice of biology career track. The biology career track areas are: (A) Ecology, (B) Marine Biology, (C) Cell/Molecular Biology, (D) Microbiology, (E) Organismal Biology and (F) Integrative Biology.

CONTACT INFORMATION

Career Counselor:

Career and Professional Development Center
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Department Contact:

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NRC 3205 | 361.825.5907
kim.withers@tamucc.edu

ADDITIONAL SOURCES OF INFORMATION

1. American Fisheries Society
2. Association for the Sciences of Limnology and Oceanography
3. Society for Marine Mammalogy

STUDENT ORGANIZATIONS

- American Cetacean Society Student Coalition
- Pre-Veterinary Society
- SACNAS Chapter at Texas A&M University - Corpus Christi
- Pre-Dental Society
- American Medical Student Association
- Sea Turtle Club
- American Fisheries Society
- Indian Student Association
- Islander Green Team
- Health Sciences Association
- Student Council of Math and Science Teachers

CAREER OPTIONS

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|--|-----------------------------------|
| • Researcher | • Pharmaceutical Sales |
| • Marine Biologist | • Laboratory Technician |
| • Medical Microbiologist | • Science Teacher |
| • Environmental Biologist | • Wildlife and Coastal Management |
| • Professional School (Med school, dental school, optometry, etc.) | |

SKILLS/ATTRIBUTES

- Communication Skills
- Research
- Ability to use scientific equipment and organize and maintain accurate records
- Aptitude for scientific inquiry and problem solving
- Ability to organize, analyze and interpret scientific data
- Conduct and clearly explain scientific research
- Teamwork