

ACADEMIC MAP

Microbiology Track Biology, Bachelor of Science



First Year		
Fall		
BIOL 1406	Biology I	4
CHEM 1411	General Chemistry I	4
ENGL 1301	Writing and Rhetoric I	3
UNIV 1101	University Seminar I	1
HIST 1301	U.S. History to 1865	3
or HIST 1302	or U.S. History Since 1865	
or HIST 2301	or Texas History	
Hours		15
Spring		
BIOL 1407	Biology II	4
CHEM 1412	General Chemistry II	4
ENGL 1302	Writing and Rhetoric II	3
UNIV 1102	University Seminar II	1
HIST 1301	U.S. History to 1865	3
or HIST 1302	or U.S. History Since 1865	
or HIST 2301	or Texas History	
Hours		15
Summer		
MATH 2413	Calculus I	4
Hours		4
Second Year		
Fall		
CHEM 3411	Organic Chemistry I	4
BIOL 2416	Genetics	3-4
or BIOL 2421	or Microbiology	
or BIOL 2371	or Principles of Evolution	
POLS 2305	U.S. Government and Politics	3
ARTS 1301	Art and Society	3
or ARTS 1303	or Art History Survey I	
or MEDA 1305	or Film and Culture	
or MUSI 1306	or Understanding and Enjoying Music	
or MUSI 1307	or Elements of Musical Style	
or THEA 1310	or Theatre Appreciation	
Hours		13-14
Spring		
CHEM 3412	Organic Chemistry II	4
BIOL 2416	Genetics	3-4
or BIOL 2421	or Microbiology	
or BIOL 2371	or Principles of Evolution	
MATH 3342	Applied Probability and Statistics	3
or BIOL 3325	or Biostatistics	
ECON 1301	Introduction to Economics	3
or ECON 2301	or Macroeconomics Principles	
or ECON 2302	or Microeconomics Principles	
or PSYC 2301	or General Psychology	
or SOCI 1301	or Introduction to Sociology	
Hours		13-14

Summer		
POLS 2306	State and Local Government	3
Hours		3
Third Year		
Fall		
BIOL 3428	Principles of Ecology	4
BIOL 2416	Genetics	3-4
or BIOL 2421	or Microbiology	
or BIOL 2371	or Principles of Evolution	
PHYS 1401	General Physics I	4
or PHYS 2425	or University Physics I	
Biology Requirement		4
Hours		15-16
Spring		
BIOL 2300	Science Communication	3
BIOL 4406	Immunology	4
BIOL 3403	Molecular Biology	4
ENGL 2316	Literature and Culture	3
or ENGL 2332	or Literature of the Western World: From the Classics to the Renaissance	
or ENGL 2333	or Literature of the Western World: From the Enlightenment to the Present	
or PHIL 1301	or Introduction to Philosophy	
or PHIL 2306	or Introduction to Ethics	
or SPAN 3307	or Spanish Literature I	
or SPAN 3308	or Spanish Literature II	
or SPAN 3309	or Spanish American Literature I	
or SPAN 3310	or Spanish American Literature II	
PHYS 1402	General Physics II	4
or PHYS 2426	or University Physics II	
Hours		18
Fourth Year		
Fall		
BIMS 4374	Medical Microbiology	3
CHEM 4401	Biochemistry I	4
BIOL 3410	Cell Biology	4
Biology Requirement		4
Hours		15
Spring		
CHEM 4402	Biochemistry II	4
BIMS 3000:4999		4
BIOL 3000:4999		4
BIOL 3000:4999		4
Hours		16
Total Hours		127-130

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

BIOLOGY - MICROBIOLOGY 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

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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