The Department of Biology is committed to excellence in instruction, scholarly accomplishment, research, professional service and student success. The Department provides a broad-based undergraduate education in Biology so as to give students the opportunity to pursue a career best-suited to their interests and abilities. Graduates are prepared to enter the workforce or continue their education in graduate or professional school. The Department provides rigorous pre-professional preparation for students seeking careers in biological sciences and health professions.

A – GENERAL EDUCATION CORE – 42 HOURS

Students must fulfill the General Education Core requirements. The courses listed below satisfy both degree requirements and General Education core requirements.

**Required**

020 - Mathematics – 3 hours
  Choose one:
  MATH 1342 Elementary Statistical Methods (or MATH 1387 Honors)
  MATH 1343 Introduction to Biostatistics (or MATH 1388 Honors)

030 - Life and Physical Science – 6 hours
  CHEM 1311 General Chemistry I
  CHEM 1312 General Chemistry II

090 - Integrative and Experiential Learning – 2 hours
  CHEM 1111 General Chemistry I Lab
  CHEM 1112 General Chemistry II Lab

B – MAJOR REQUIREMENTS – 44 HOURS (36 advanced)

1 – Biology Foundation – 23 hours (15 advanced)
  BIOL 1406 General Biology I (or BIOL 1487 Honors)
  BIOL 1407 General Biology II (or BIOL 1488 Honors)
  BIOL 3301 Biological Evolution
  BIOL 3409 Ecology
  BIOL 3403 Genetics
  BIOL 4400 Biological Communication (Capstone)

2 – Advanced Biology Electives – 21 hours (9 advanced minimum)
  Students must take at least one course from each group representing one of three organizational levels of Biology. Group criteria do not need to be met with advanced hours.

  a – Cellular/Molecular
  Choose at least one:
  BIOL 3401 General Microbiology
  BIOL 3403 Medical Microbiology and Immunology
  BIOL 3405 Histology
  BIOL 3406 Developmental Mechanisms
  BIOL 3412 Cell Biology
  BIOL 3415 Molecular Biology
  BIOL 4313 Endocrinology
  BIOL 4330 Molecular Evolution
  BIOL 4333 Immunology
  BIOL 4408 Plant Pathology
  BIOL 4413 General Virology
  BIOL 4417 Bacterial Genetics
  BIOL 4418 Electron Microscopy
  BIOL 4421 Biotechnology
  BIOL 4428 Medical Genomics
  CHEM 3303 Biochemistry I

  b – Organismal
  Choose at least one:
  BIOL 2401 Anatomy and Physiology I
  BIOL 2402 Anatomy and Physiology II
BIOL 2428 Comparative Vertebrate Anatomy
BIOL 3310 Neurobiology
BIOL 3345 Animal Nutrition
BIOL 3407 Comparative Embryology
BIOL 3408 Plant Morphology
BIOL 3411 Mammalian Physiology
BIOL 3414 Vertebrate Zoology
BIOL 4319 Medical Entomology
BIOL 4362 Neuroscience II: System, Developmental, and Disorders
BIOL 4402 Marine Zoology
BIOL 4404 Ichthyology
BIOL 4405 Plant Physiology
BIOL 4407 Animal Parasitology
BIOL 4409 Herpetology
BIOL 4410 Marine Botany
BIOL 4412 Ornithology
BIOL 4414 Plant Taxonomy
BIOL 4415 Entomology
BIOL 4416 Mammalogy
BIOL 4417 Aquatic Entomology
BIOL 4420 Plant Anatomy
BIOL 4422 Neurobiology Methods

**c – Ecological/Environmental**

*Choose at least one:*

- BIOL 2310 Marine Processes and Ecosystem Dynamics
- BIOL 3404 Conservation Biology
- BIOL 3420 Environmental Biology
- BIOL 4316 Environmental Toxicology
- BIOL 4317 Disease Epidemiology
- BIOL 4318 Ethnobotany
- BIOL 4388 Global Change Ecology
- BIOL 4389 Geographical Information Systems in Biology
- BIOL 4403 Introduction to Remote Sensing Technology
- BIOL 4411 Ecological Physiology of Animals
- BIOL 4424 Microbial Ecology
- BIOL 4426 Marine Ecology
- BIOL 4427 Marine Animal Field Studies
- BIOL 4429 Agroecology
- BIOL 4432 Animal Behavior

**C – SUPPORT COURSES – 4 HOURS**

- CHEM 2123 Organic Chemistry I Lab
- CHEM 2323 Organic Chemistry I

**D – FREE ELECTIVES – 12 HOURS**

*Advanced hours will vary to meet 42 advanced hour requirement.*

**E – MINOR – 18 HOURS (6 advanced)**

**TOTAL CREDIT HOURS FOR GRADUATION – 120 HOURS**

**TOTAL ADVANCED HOURS – 42 HOURS**
ADMISSION, PROGRESSION, AND GRADUATION REQUIREMENTS, if applicable:

**Admission requirements**
Admission requirements to this program: BIOL 1406 (or BIOL 1487 Honors), BIOL 1407 (or BIOL 1488 Honors), and CHEM 1311/CHEM 1111 with a 'C' or better grade in all of these courses and Department approval.

**Graduation requirements**
1. Minimum 44 credit hours in Biology and 2.50 Biology GPA; At least 36 upper division hours in Biology.
2. In addition to the graduation requirements listed in the UTRGV 2017-2018 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV Department of Writing and Language Studies, and/or up to six credit hours of college-level language coursework.