

Major:

## Biology (B.A.)

The B.A. in biology can provide students with the experience and knowledge necessary to have a successful career. A B.A. in biology requires 20 approved hours from Math, Physics, or Chemistry department courses. The B.A. has a more flexible supporting area and is a particularly appealing option for students who would like to combine their biology degree with another area of emphasis.

Departments/Programs:

Biology

### Biology Major (B.A., 31 hours plus a 20-hour supporting program)

Biology Core	12 hours
BIO 1400FYW Introduction to Biological Inquiry	4 hours
BIO 2200 Genetics and Cell Biology	4 hours
BIO 2300 Ecology and Evolution	4 hours
Biology Electives	16 hours
Must have two lab courses, with at least one from Area A and one from Area B. Remaining hours from any areas (A, B, C, D, E).	
Capstone	3 hours
BIO 4990 Senior Capstone	3 hours

### Biology Electives

Area A. Cellular, Developmental and Molecular Biology	
BIO 3160 Medical Botany	3 hours
BIO 3160 Medical Botany and BIO 3170 Medical Botany Lab (lab course)	4 hours
BIO 3440 Developmental Biology (lab course)	4 hours
BIO 3690 Microbiology (lab course)	3 hours
BIO 3800 Molecular Genetics	4 hours

### Area A. Cellular, Developmental and Molecular Biology

BIO 3800 Molecular Genetics	4 hours
BIO 4190 Histology (lab course)	4 hours
BIO 4750 Immunology	3 hours
BIO 4750 Immunology	3 hours

### Area B. Population and Ecological Biology

BIO 3180 Plant Taxonomy (lab course)	4 hours
BIO 3220 Parasitology (lab course)	4 hours
BIO 3500 Conservation Biology (lab course)	4 hours
BIO 3530 Principles of Marine Biology and Oceanography and BIO 3540 Applied Marine Biology (lab course)	5 hours
BIO 3550 Tropical Ecosystems	3 hours
BIO 3640 Animal Behavior	3 hours
BIO 3640 Animal Behavior and BIO 3650 Laboratory in Animal Behavior (lab course)	4 hours
BIO 3720 Physiological Ecology (lab course)	4 hours
BIO 4210 Ecology (lab course)	4 hours
BIO 4480 Vertebrate Zoology (lab course)	4 hours
BIO 4610 Evolution	4 hours

### Area C. Applied Biology

BIO 2940 Biology Assistantship	1 hour
BIO 2970 Internship	1 hour
BIO 2980 Practicum	1 hour
BIO 3000 An Introduction to Biomedical Ethics	2 hours
BIO 3200 Advanced Human Anatomy and Physiology I and BIO 3200L Advanced Human Anatomy and Physiology I Lab (lab course)	4 hours

### Area C. Applied Biology

BIO 3210 Advanced Human Anatomy and Physiology II and BIO 3210L Advanced Human Anatomy and Physiology II Lab (lab course)	4 hours
BIO 3300 Cadaver Dissection	2 hours
BIO 3950/BIO 4950 Independent Study	1-2 hours
BIO 3970 Internship	2-3 hours
BIO 3980 Practicum	2-3 hours
BIO 4700 Pathophysiology	3 hours

### Area D. Global Experience in Biology

BIO 3510 Tropical Biology of Costa Rica	3 hours
BIO 3520 Tropical Biology of Belize	3 hours
BIO 3530 Principles of Marine Biology and Oceanography	3 hours
BIO 3540 Applied Marine Biology	3 hours

### Area E. Additional Courses

BIO 3900/BIO 4900 Selected Topics	1-4 hours
BIO 3910 Directed Readings	1-2 hours

BIO 1080 Microbiology, BIO 1090 Introduction to Human Anatomy and Physiology I, and BIO 1100 Introduction to Human Anatomy and Physiology II may not fulfill biology major requirements.

### Required Supporting Program

20 hours

An approved supporting program of 20 hours is also required, normally comprised of courses from the Math, Physics, or Chemistry departments. Required Supporting Program Courses:

- CHEM 1110 Chemical Principles I and CHEM 1110L Chemical Principles I Laboratory
- CHEM 2100 Organic Chemistry I and CHEM 2100L Organic Chemistry I Laboratory