

# Biology Major

## BIOLOGY MAJOR

### **Student Learning Outcomes**

Upon completion of the Biology major, students will be able to perform the following:

1. Identify, describe, and explain the basic terminology, concepts, methodologies and theories used within the biological sciences (Content).
2. Analyze biological information and develop reasoned based solutions to problems using the processes and applications of scientific inquiry using ethical behaviors (Critical Thinking).
3. Communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the biological sciences (Communication).

### **Program Outcomes**

As a result of successful completion of the Biology Program, graduates will be able to perform the following:

1. Matriculate to graduate and professionals schools or accept employment within the field of biological sciences.
2. Participate in an extracurricular research experience.
3. Pass the Senior Exit Examination on the first attempt.

Students who major in Biology also can seek secondary education certification in General Science by taking the identified courses in Education and completing the GPA and testing requirements for certification. Students interested in this option should speak with their academic advisors as well as with the Dean of the School of Education and/or a faculty member in the Department of Education.

### **Degree Type**

Bachelor of Science

# Major in Biology

## Required courses for the major in Biology

A major in Biology requires a minimum of 32 semester hours of biology courses, 3 hours of mathematics courses, 16 hours of chemistry courses, and 8 hours of physics courses. The following is a list of required courses for a major in Biology:

Item #	Title	Credits
BIO 141	General Biology for Majors I	4
BIO 142	General Biology for Majors II	4
BIO 231	Zoology	3
BIO 232	Plant Organization	3
BIO 334	Principles of Genetics	3
BIO 420	Senior Seminar in Biology	2
BIO 448	Cell Physiology	4
	Biology Elective	3
	Biology Elective	3
	Biology Elective	3
MAT 132	Trigonometry and Analytic Geometry	3
CHM 141	General Chemistry I	4
CHM 142	General Chemistry II	4
CHM 343	Organic Chemistry I	4
CHM 344	Organic Chemistry II	4
PHY 243	Physics I	4
PHY 244	Physics II	4

# Minor in Biology

## Required courses for the minor in Biology

A minor in biology consists of a minimum of 20 credit hours. The following courses are required for a minor in Biology:

Item #	Title	Credits
BIO 141	General Biology for Majors I	4
BIO 142	General Biology for Majors II	4
BIO 231	Zoology	3
BIO 334	Principles of Genetics	3
	Biology Elective	3
	Biology Elective	3
	Total Credits	59

## Major in Biology FRESHMAN YEAR Fall Semester

Item #	Title	Credits
BIO 141	General Biology for Majors I	4
ENG 131	English Composition I	3
REL 131	Introduction to the Old Testament	3
HUM 130	African American Heritage	3
MAT 131	Algebra	3
STI 111	Orientation	1

## FRESHMAN YEAR Spring Semester

Item #	Title	Credits
BIO 142	General Biology for Majors II	4
ENG 132	English Composition II	3
REL 132	Introduction to the New Testament	3
MAT 132	Trigonometry and Analytic Geometry	3
CSC 121	Critical Thinking in Digital Age	2
STI 114	Orientation II	1

## SOPHOMORE YEAR Fall Semester

Item #	Title	Credits
BIO 231	Zoology	3
CHM 141	General Chemistry I	4
	200-level Religion	3
PHY 243	Physics I	4
PSY 230	Introduction to Psychology	3

## SOPHOMORE YEAR Spring Semester

Item #	Title	Credits
BIO 232	Plant Organization	3
CHM 142	General Chemistry II	4
ENG 235	Technical Writing	3
PHY 244	Physics II	4
BUS 210	Financial Literacy	1

## JUNIOR YEAR Fall Semester

Item #	Title	Credits
CHM 343	Organic Chemistry I	4
	Biology Elective	3
HIS 131	Foundations of World Civilization	3
SPE 232	Public Speaking	3

## JUNIOR YEAR Spring Semester

Item #	Title	Credits
CHM 344	Organic Chemistry II	4
BIO 334	Principles of Genetics	3
HPR 121	Lifetime Wellness	2
LOG 330	Logic	3
EDU 310	Test Taking Strategies	1

## SENIOR YEAR Fall Semester

Item #	Title	Credits
BIO 448	Cell Physiology	4
	Biology Elective	3
	300-level Religion	3
	General Elective (3 credits)	3

## SENIOR YEAR Spring Semester

Students may take 10 credits of General Electives.

Item #	Title	Credits
BIO 420	Senior Seminar in Biology	2
	Biology Elective	3
	General Elective (3 credits)	3
	General Elective (3 credits)	3
	General Elective (2 credits)	2
	General Elective (2 credits)	2