

# BIOLOGY (BS)

## Bachelor of Science in Biology

- Cornerstone Core Requirements (<https://catalog.cornerstone.edu/undergraduate/cornerstone-core/>)
- Major Requirements
- Required Concentration (choose one)
  - Pre-Veterinary
  - Pre-Physician Assistant
  - Biological Research
  - Pre-Optometry
  - Pre-Medical/Dental/Pharmacy

### Major Requirements

Code	Title	Hours
BIO-151	GENERAL BIOLOGY	4
BIO-233	ZOOLOGY	4
BIO-241	ANATOMY & PHYSIOLOGY I	4
BIO-351	GENETICS	4
BIO-352	MICROBIOLOGY	4
BIO-400	CAPSTONE SEMINAR: BIOETHICS & ARGUMENT	3
SCI-361	EVOLUTION & ORIGINS	3
SCI-380	INTERNSHIP	3
SCI-495	SENIOR RESEARCH PROJECT	1
SCI-496	SENIOR RESEARCH SEMINAR	2
CHM-121	GENERAL CHEMISTRY I	4
CHM-122	GENERAL CHEMISTRY II	4
CHM-230	ORGANIC CHEMISTRY LAB I	2
CHM-231	ORGANIC CHEMISTRY I	3
PHY-211	GENERAL PHYSICS I	4
Choose one of the following:		3
MAT-151	STATISTICS	
BIO-121	BIOSTATISTICS	
Choose one of the following:		3-4
MAT-121	COLLEGE ALGEBRA	
MAT-122	PRE-CALCULUS	
<b>Total Hours</b>		<b>55-56</b>

### Concentrations

#### Pre-Veterinary

Code	Title	Hours
BIO-431	VERTEBRATE ZOOLOGY	4
CHM-232	ORGANIC CHEMISTRY II	3
CHM-233	ORGANIC CHEMISTRY II LAB	2
CHM-472	BIOCHEMISTRY	4
PHY-212	GENERAL PHYSICS II	4
Choose one of the following:		4
BIO-451	MOLECULAR CELL BIOLOGY	
BIO-331	ORNITHOLOGY	
Choose a minimum of nine credits from the following:		9
BIO-242	ANATOMY & PHYSIOLOGY II	
BIO-331	ORNITHOLOGY	
BIO-451	MOLECULAR CELL BIOLOGY	

CHM-411	PERSPECTIVES IN CHEMISTRY
ECO-241	ENVIRONMENTAL SCIENCE
ECO-341	ECOLOGY
ECO-345	WILDLIFE ECOLOGY - AUSABLE
SCI-345	GLOBAL HEALTH & EPIDEMIOLOGY
KIN-100	TOTAL FITNESS & WELLNESS (including activity course co-req)
<b>Total Hours</b>	<b>30</b>

#### Pre-Physician Assistant

Code	Title	Hours
BIO-242	ANATOMY & PHYSIOLOGY II	4
BIO-347	INTRODUCTION TO NUTRITION	3
SCI-242	MEDICAL TERMINOLOGY	2
SCI-345	GLOBAL HEALTH & EPIDEMIOLOGY	3
PSY-111	GENERAL PSYCHOLOGY	3
PSY-235	LIFESPAN DEV PSYCHOLOGY	3
Choose one of the following:		4
CHM-212	PRINCIPLES OF ORGANIC & BIOCHEM	
CHM-472	BIOCHEMISTRY	
Choose a minimum of nine credits from the following:		9
BIO-353	PATHOPHYSIOLOGY	
BIO-451	MOLECULAR CELL BIOLOGY	
CHM-122	GENERAL CHEMISTRY II	
CHM-232	ORGANIC CHEMISTRY II	
CHM-233	ORGANIC CHEMISTRY II LAB	
SCI-346	PHARMACOLOGY	
SCI-423	NEUROSCIENCE	
KIN-100	TOTAL FITNESS & WELLNESS (including activity course co-req)	
<b>Total Hours</b>		<b>31</b>

#### Biological Research

Code	Title	Hours
BIO-225	BOTANY	4
BIO-242	ANATOMY & PHYSIOLOGY II	4
BIO-451	MOLECULAR CELL BIOLOGY	4
CHM-232	ORGANIC CHEMISTRY II	3
CHM-233	ORGANIC CHEMISTRY II LAB	2
CHM-472	BIOCHEMISTRY	4
PHY-212	GENERAL PHYSICS II	4
Choose a minimum of three credits from the following:		3-4
CHM-411	PERSPECTIVES IN CHEMISTRY	
ECO-241	ENVIRONMENTAL SCIENCE	
ECO-341	ECOLOGY	
SCI-345	GLOBAL HEALTH & EPIDEMIOLOGY	
SCI-423	NEUROSCIENCE	
KIN-100	TOTAL FITNESS & WELLNESS (including activity course co-req)	
<b>Total Hours</b>		<b>28-29</b>

**Pre-Optometry**

<b>Code</b>	<b>Title</b>	<b>Hours</b>
BIO-242	ANATOMY & PHYSIOLOGY II	4
BIO-451	MOLECULAR CELL BIOLOGY	4
CHM-472	BIOCHEMISTRY	4
MAT-131	CALCULUS I	4
PHY-212	GENERAL PHYSICS II	4
PSY-111	GENERAL PSYCHOLOGY	3
<i>Choose six credits from the following:</i>		6
BIO-353	PATHOPHYSIOLOGY	
SCI-345	GLOBAL HEALTH & EPIDEMIOLOGY	
SCI-346	PHARMACOLOGY	
SCI-423	NEUROSCIENCE	
KIN-100	TOTAL FITNESS & WELLNESS (including activity course co-req)	
<b>Total Hours</b>		<b>29</b>

**Pre-Medical/Dental/Pharmacy**

<b>Code</b>	<b>Title</b>	<b>Hours</b>
BIO-242	ANATOMY & PHYSIOLOGY II	4
BIO-347	INTRODUCTION TO NUTRITION	3
BIO-451	MOLECULAR CELL BIOLOGY	4
CHM-232	ORGANIC CHEMISTRY II	3
CHM-233	ORGANIC CHEMISTRY II LAB	2
CHM-472	BIOCHEMISTRY	4
PHY-212	GENERAL PHYSICS II	4
<i>Choose six credits from the following:</i>		6
BIO-353	PATHOPHYSIOLOGY	
CHM-411	PERSPECTIVES IN CHEMISTRY	
SCI-345	GLOBAL HEALTH & EPIDEMIOLOGY	
SCI-346	PHARMACOLOGY	
SCI-423	NEUROSCIENCE	
KIN-100	TOTAL FITNESS & WELLNESS (including activity course co-req)	
<b>Total Hours</b>		<b>30</b>