# Biology, Associate in Science

This degree can lead to a baccalaureate degree in biology at accredited colleges and universities. It is appropriate for students interested in pre-professional programs, such as, biology, ecology, pharmacy, chiropractics, medical, dental, mortuary science, horticulture, veterinary and education. It may also apply to technician-level job opportunities when two years of academic preparation in biology are required. Electives should be selected based on the student's interest, the requirements of the transfer institution or technical-level vocation opportunities. It is strongly recommended that students entering the program have a minimum of one year of high school biology, chemistry and mathematics at an advanced level.

For additional information, please contact department chair, Kenneth Cabarle at (609) 343-5128 or kcabarle@atlanticcape.edu.

#### Upon completion of this program students will be able to:

- Demonstrate safe and environmentally friendly practices in a laboratory setting;
- · Apply the scientific method in experimentation, collection and interpretation of data;
- Demonstrate proper use of laboratory equipment to make observations and to obtain data;
- Learn proper handling of living and preserved specimens;
- Develop an in-depth understanding of the fundamentals of biology through a combination of lectures and laboratories.

(BIOG-Fall 2022)

## **General Education Courses**

When a course is not specified, refer to the list of approved General Education courses.

#### Communication

Course #	Title	Credits
ENGL101	Composition I	3
ENGL102	Composition II	3

# Mathematics-Science-Technology

Course #	Title	Credits
BIOL109	General Biology I	4
MATH155	Calculus I	4
CHEM110	General Chemistry I	4

## Social Science

Course #	Title	Credits
	General Education Social Science Course (3 credits)	3

#### Humanities

Course #	Title	Credits
	General Education Humanities Course (3 credits)	3
	Choose: ARTS103, ARTS108, ARTS109, ARTS115, DANC170, MUSC100 or THEA110 (3 credits)	3

## **General Education Elective**

Course #	Title	Credits
	General Education Course (3 credits)	3

#### **Program Requirements**

Course #	Title	Credits
BIOL110	General Biology II	4
CHEM111	General Chemistry II	4
CHEM210	Organic Chemistry I	4

## Program Electives - Choose 18 credits from the following:

Course #	Title	Credits
PHIL/BIOL104	Bioethics: Realities of the New Millennium	3
BIOL205	Genetics	4
BIOL250	Microbiology	4
CHEM211	Organic Chemistry II	4
ENVL205	Ecology	4
MATH152	Linear Algebra	4
MATH156	Calculus II	4
MATH255	Calculus III	4
PHIL101	Introduction to Logic	3
	PHYS125 or PHYS225 (See advisor for best option. PHYS125 offered in fall only)	4
	PHYS126 or PHYS226 (See advisor for best option. Offered in spring only)	4

# Technological Competency: 0-4 Credits

(Is fulfilled with CISM125 or CISM132, which may be taken as a General Education Elective, testing or reviewed departmental portfolio.)

**Total Credits** 

60

**Recommended Sequence of Courses** 

#### **First Semester**

Course #	Title	Credits
BIOL109	General Biology I	4
CHEM110	General Chemistry I	4
ENGL101	Composition I	3
MATH155	Calculus I	4

# Second Semester

Course #	Title	Credits
BIOL110	General Biology II	4
CHEM111	General Chemistry II	4
ENGL102	Composition II	3
	Program Elective Course (4 credits)	4

# **Third Semester**

Course #	Title	Credits
CHEM210	Organic Chemistry I	4
	General Education Humanities Course (3 credits)	3
	General Education Course (3 credits)	3
	Program Elective Course (3 credits)	3
	Program Elective Course (4 credits)	4

# Fourth Semester

Course #	Title	Credits
	Choose: ARTS103, ARTS108, ARTS109, ARTS115, DANC170, MUSC100 or	3
	THEA110 (3 credits)	
	General Education Social Science Course (3 credits)	3
	Program Elective Course (3 credits)	3
	Program Elective Course (4 credits)	4