

### East Central College

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## THE CAREER

Merriam-Webster defines biology as "a branch of knowledge that deals with living organisms and vital processes." This field of study can take a variety of career forms in research, industry, government and education.

ECC students who complete the associate degree in biology are prepared to enter an undergraduate major program which leads to training and careers in these fields.

## EMPLOYMENT OPPORTUNITIES

More specifically, related jobs include:

- ✓ Forensics
- ✓ Environmental engineering
- ✓ Medical research
- ✓ Biologist
- ✓ Food and drug administration
- ✓ Testing laboratory technician
- ✓ Aquatic science

## PROFESSIONAL TRAITS

Those pursuing a career in this field should:

- Have strong written and verbal communication skills
- Exercise good analytical judgment
- Work well under pressure
- Possess solid problem-solving skills
- Be detailed oriented
- Have manual dexterity skills

## THE PROGRAM

This curriculum is intended for students planning to transfer to a four-year institution. Students at East Central College who express an interest in biology or a related field have several course options and electives available. Assuming appropriate placement scores, biology is a two- year degree, with flexibility to customize the program of study toward the student's chosen career.

The program consists of the 42-credit hour general education core required of all transfer degrees plus the necessary electives to satisfy the biology degree requirements. ECC offers a wide range of electives in biology, chemistry and physics. In addition, the college provides various student activities related to the discipline such as the Biotechnology Club, Green Falcons and practicum experiences.

It is helpful if students pursuing the biology degree make early contact with a transfer institution in planning their program of study. They may wish to choose electives based on the requirements of that institution.

## GENERAL EDUCATION REQUIREMENTS

East Central College requires each transfer student complete a 42 hour general education block. General education at ECC is organized around the institution's common learning objectives and coursework. A student is required to demonstrate skills in each of the following three areas:

- **Communicating:** Improve written and oral communication skills; adapt and apply communication to academic and professional purposes, audiences and contexts; demonstrate the use of technology to analyze and communicate information; and use active listening and reading skills.
- **Creative/Critical Thinking:** Improve the application of relevant knowledge and theory to new ideas, positions or solutions; assess and analyze concepts and data; formulate meaningful questions; and interpret and evaluate evidence and arguments.
- **Ethics and Social Responsibility:** Develop cross cultural awareness and an understanding of global interconnectedness; apply multiple worldviews, analyze ethical choices and consequences; and understand the core values and accountability of citizenship in a democratic society.

## ADMISSIONS REQUIREMENTS

Students must have completed:

- ✓ High school diploma or the equivalent (documentation must be sent to the registration office)
- ✓ Application for admission
- ✓ A placement test as specified by the college (some coursework requires minimum placement results)

## TRANSFER OPTIONS

Many of the credits, particularly the general education electives earned with this degree, are accepted as transfer credits by four-year colleges and/or universities. Please note that transferring credit is decided by the bachelor degree granting institution. Students seeking to transfer are advised to contact the four-year institutions regarding the transferability of the credits and coursework offered through East Central College.

East Central College is accredited by the Higher Learning Commission and a participant in the Academic Quality Improvement Program (AQIP).

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# BIOLOGY

## ASSOCIATE OF ARTS DEGREE

### PROGRAM OF STUDY

This program of study is for a full-time student; part-time study is also available. Please contact an academic advisor for full course options. All academic schedules are subject to change. For the most current schedule, visit [www.eastcentral.edu](http://www.eastcentral.edu).

## YEAR 1

### FALL SEMESTER

COURSE	HOURS
FS 1000/ FS 1001 Campus Orientation/ Foundation Seminar	1
EN 1223 English Comp I or EN 1233 Honors English Comp I	3
Math Elective**	3-5
SC 1000 Laboratory Safety for Students	0
CH 1305 General Chemistry I Lecture/Lab	5
<b>TOTAL HOURS</b>	<b>12-14</b>

### SPRING SEMESTER

COURSE	HOURS
CH 1405 General Chemistry II Lecture/Lab	5
EN 1333/ EN 1343 English Comp II/ Honors English Comp II	3
BI 1325 Principles of Biology I Lecture/Lab	5
PR 2103 Ethics	3
<b>TOTAL HOURS</b>	<b>16</b>

### SUMMER SEMESTER

COURSE	HOURS
CT 1103 Public Speaking	3
<b>TOTAL HOURS</b>	<b>3</b>

## YEAR 2

### FALL SEMESTER

COURSE	HOURS
BI 1415 Principles of Biology II Lecture/Lab	5
Program Elective with Lab*	5
Any course within Ethics and Valuing	3
Any course within Global and Cross Cultural	3
<b>TOTAL HOURS</b>	<b>16</b>

### SPRING SEMESTER

COURSE	HOURS
HI 1000/ PS 1000 Constitutional Study Module	0
U.S. History Requirement	3
EN 1403 Technical Writing	3
Program Elective with Lab*	5
Any course in Ethics or Social Responsibility	3
<b>TOTAL HOURS</b>	<b>14</b>

### \*PROGRAM ELECTIVES

COURSE	HOURS
BI 2045 Cell Biology Lecture/Lab	5
BI 2005 Genetics Lecture/Lab	5
CH 2305 Organic Chemistry I Lecture/Lab	5
CH2415 Organic Chemistry II Lecture/Lab	5
PH1703/ PH 1712 College Physics I Lecture/Lab	5
PH1803/ PH1812 College Physics II Lecture/Lab	5

### \*\*MATH ELECTIVES

COURSE	HOURS
MT 2103 Statistics	3
MT 1505 Pre-Calculus Math	5
MT 1605 Analytic Geometry & Calculus I	5