



# EAST CENTRAL COLLEGE

## PHYSICAL SCIENCE

### ASSOCIATE OF ARTS DEGREE

#### East Central College

1964 Prairie Dell Road  
Union, Missouri 63084  
636-584-6500  
www.eastcentral.edu

#### Admissions Office

ECC Campus  
636-584-6563  
admissions@eastcentral.edu

#### Program Faculty

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#### Division Chair

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#### Division

Mathematics and Physical  
Science  
636-584-6773

East Central College is  
accredited by the Higher  
Learning Commission of the  
North Central Association of  
Colleges and Schools  
30 N. LaSalle St., Suite 2400  
Chicago, Illinois 60602-2504  
800-621-7440

### THE CAREER

The career of a physical scientist is geared toward those students who are fascinated by the way natural systems impact their daily lives and want to have a greater understanding of these systems. Physical science is the study of multiple scientific areas including geology, meteorology, chemistry, materials science and astronomy.

ECC students who complete their associate degree in physical science are prepared to enter an undergraduate major leading to training in these areas. Although a bachelor's or master's degree is necessary to be a physical scientist, the ECC program provides students with strong foundational skills to pursue these advanced degrees and their chosen career.

### PROFESSIONAL TRAITS

Those choosing employment in this field should:

- Have an aptitude for math and science
- Be able to analyze, compare and interpret facts and figures quickly
- Clearly communicate the results of their work to clients and managers both verbally and in writing
- Be good at working with people, business systems and computers

### EMPLOYMENT AND SALARY INFORMATION

The study of science in school appears to be dropping in the U.S. Consequently, there is currently a large demand for qualified candidates to fill physical science positions ranging from technicians to research scientists.

In 2011, median wage and salary earnings\* were:

Chemistry:	\$74,780
Physics:	\$112,090
Astronomy:	\$101,630
Hydrology:	\$79,070
Atmospheric/Space Sciences:	\$90,860
All Other Physical Sciences:	\$96,290

\* Data provided by the U.S. Bureau of Labor Statistics

### 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 physical science have several course options and electives available. Assuming appropriate placement scores, physical science is a two-year degree, with flexibility to customize the program of study toward the student's chosen career.

The program consists of the 43-credit hour general education core required of all transfer degrees plus the necessary electives in chemistry, physics, environmental science and more. In addition, the college provides various student activities and organizations related to the discipline--such as the Green Falcons--and practicum experiences.

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

### ADMISSION REQUIREMENTS

Students must have completed:

- ✓ High school diploma or the equivalent (documentation sent to the registration office)
- ✓ Application for admission
- ✓ A placement test as specified by the college (please note: 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.

UNION  
636-584-6588

SULLIVAN  
573-468-8287

ROLLA  
573-458-0165

WARRENTON  
636-584-6588

WASHINGTON  
636-239-0598

WWW.EASTCENTRAL.EDU

## PROGRAM OF STUDY

This is a program of study for a full-time student. Part-time study is available. Please see your advisor for course options. Course schedule is subject to change. Please review the online college schedule at [www.eastcentral.edu](http://www.eastcentral.edu) for the most current offerings.

### YEAR 1

#### FALL SEMESTER

COURSE	HOURS
FS 1000 Campus Orientation/ FS 1001 Foundation Seminar	1
EN 1223 English Comp I or EN 1233 English Comp I (Honors)	3
MT 1605 Analytic Geometry & Calculus I (HOT, MAI, MTH)	5
SC 1000 Science Lab Safety	0
CH 1305 General Chemistry I Lecture/Lab (HOT, VAL, MAI, LPS)	5
Total Hours	14

#### SPRING SEMESTER

COURSE	HOURS
Humanities Elective (HOT, MAI)	3
EN 1333 English Comp II or EN 1343 English Comp II (Honors)	3
MT 2105 Analytic Geometry & Calculus II (HOT, MTH, MAI)	5
PH 2013 General Physics I Lecture (HOT, LPS, VAL)	3
PH 2112 General Physics I Lab (MAI, LPS)	2
Total Hours	16

#### SUMMER SEMESTER

COURSE	HOURS
Humanities Elective (GLB)	3
CT 1103 Public Speaking (COM)	3
Total Hours	6

### YEAR 2

#### FALL SEMESTER

COURSE	HOURS
Humanities Elective (HOT, MAI)	3
Social Science Elective (GLB, WRT)	3
CH 1405 General Chemistry II Lecture/Lab	5
BI 1325 Principles of Biology I Lecture/Lab (LPS, HOT, VAL, MAI)	5
PE Elective	1
Total Hours	17

#### SPRING SEMESTER

COURSE	HOURS
MT 2205 Analytic Geometry & Calculus III	5
Social Science Elective (VAL, WRT)	3
Humanities Elective (GLB, WRT)	3
HI 1000/ PS 1000 Constitutions Study Module	0
History or Pol. Science Elective (HOT, WRT)	3
Total Hours	14