

### 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

### Division

Fatemeh Nichols, Ph.D.  
*Division Chair*  
(636) 584-6626  
Fatemeh.Nichols@eastcentral.edu

Science and Engineering  
(636) 584-6632

### Program Faculty

Matthew Monzyk, Ph.D.  
*Associate Professor*  
(636) 584-6625  
Matthew.Monzyk@eastcentral.edu

Fatemeh Nichols, Ph.D.  
*Professor*  
(636) 584-6626  
Fatemeh.Nichols@eastcentral.edu

East Central College is accredited by  
the Higher Learning Commission and  
a participant in the Academic Quality  
Improvement Program (AQIP).  
30 N. LaSalle St., Suite 2400  
Chicago, Illinois 60602-2504  
1 (800) 621-7440

### THE CAREER

Employment in the chemistry field follows the five main branches of the discipline: biochemistry and analytical, physical, organic and inorganic chemistry. ECC students who complete their associate degree in chemistry are prepared to enter an undergraduate major leading to training in these areas. Opportunities include graduate and professional chemistry schools, and careers in research, industry, government and education.

### EMPLOYMENT OPPORTUNITIES

More specifically, related jobs include:

- ✓ Laboratory technician
- ✓ Chemist
- ✓ Quality control and assurance
- ✓ Technical writing or sales
- ✓ Forensic science
- ✓ Chemical safety officer
- ✓ Chemical information specialist
- ✓ Environmental science
- ✓ Product development and testing
- ✓ Medical research

### PROFESSIONAL TRAITS

Those pursuing a career in this field should:

- Have solid written and verbal communications skills
- Exercise good analytical judgment
- Be proficient with scientific equipment
- Possess solid problem-solving skills
- Be detail oriented and well organized
- Demonstrate concern for the public's health and safety

### 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 chemistry or a related field have several course options and electives available. Assuming appropriate placement scores, chemistry 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 in biology, chemistry and physics. In addition, the college provides various student activities related to the discipline such as the Green Falcons and practicum experiences.

It is helpful if students pursuing the chemistry 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.

### 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.

### 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 EN 1233	English Comp I or Honors English Comp I	3
MT 1605	Analytic Geometry and Calculus I	5
SC 1000	Laboratory Safety for Students	0
CH 1305	General Chemistry I Lecture/Lab	5
	<b>Total Hours</b>	<b>14</b>

### SPRING SEMESTER

COURSE	Hours	
CH 1405	General Chemistry II Lecture/Lab	5
EN 1333/ EN 1343	English Comp II or Honors English Comp II	3
BI 1203	Intro to Life Science	3
PR 2103	Ethics	3
	<b>Total Hours</b>	<b>14</b>

### SUMMER SEMESTER

COURSE	Hours	
CT 1103	Public Speaking	3
	<b>Total Hours</b>	<b>3</b>

## YEAR 2

### FALL SEMESTER

COURSE	Hours	
CH 2305	Organic Chemistry I Lecture/Lab	5
	Program Elective*	5
EN 1403	Technical Writing	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
CH 2415	Organic Chemistry II Lecture/Lab	5
	Any course in Ethics and Valuing	3
	Any course in Ethics or Social Responsibility	3
	<b>Total Hours</b>	<b>14</b>

\*Program Electives are any course with the prefix MT or PH