

## **East Central College**

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www.eastcentral.edu

## **Admissions Office**

ECC Campus  
(636) 584-6563  
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## **Division**

Science and Engineering  
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## **Program Faculty**

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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

Engineers apply math and science principles to develop practical solutions to technical problems. They design products, machinery to build those products and the plants in which those products are made. Engineers also design the systems that ensure the quality of the products and the efficiency of the workforce and manufacturing process.

In addition, these professionals design, plan and supervise the construction of buildings, highways and transit systems. Engineers develop and implement improved ways to extract, process and use raw materials such as minerals, petroleum and biomass.

Moreover, they harness the power of the sun and resources from the Earth to meet the energy needs of society. To this end, engineers analyze the impact of the products they develop or the systems they design on the environment and the people using them.

## EMPLOYMENT INFORMATION

Per the U.S. Bureau of Labor Statistics, these categories of engineers are expected to have employment growth over the next decade: mechanical engineers at nine percent, electrical engineers and chemical engineers at six percent and civil engineers at 19 percent.

Median wage and salary earnings:

Civil Engineer:	\$77,560
Mechanical Engineer:	\$78,280
Electrical Engineer:	\$87,180
Chemical Engineer:	\$90,300

## PROFESSIONAL TRAITS

Those pursuing a career 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
- Work well with people, business systems and computers

## THE PROGRAM

ECC offers its engineering students a complete two-year program which includes basic physics and calculus classes, as well as upper-level science and engineering electives. Students also participate in classroom design and robotics projects.

Class sizes are small and students have the opportunity to receive individual help when necessary. With the ECC Associate of Science Degree in Transfer Engineering, students are able to focus on any of the 15 different fields of engineering.

## 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 should communicate often with their faculty advisors and the East Central College transfer advisor. They should also make early contact with the four-year institution of their choice regarding the transferability of ECC credits and coursework.

# TRANSFER ENGINEERING

## ASSOCIATE OF SCIENCE

### PROGRAM OF STUDY

AS program (65 credit hours)

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 Campus Orientation/ FS 1001 Foundation Seminar	1
MT 1605 Calculus I	3
EG 1103 Engineering Design	3
EN 1223/ English Comp I or EN 1343 Honors English Comp I	3
Ch 1305 General Chemistry I Lecture/Lab	5
<b>Total Hours</b>	<b>17</b>

### SPRING SEMESTER

COURSE	HOURS
MT 2105 Calculus II	5
PH 2000 Physics Recitation	0
PH 2103/ Physics I Lecture / PH 2112 Lab	5
History or Political Science Requirement	3
General Education Requirement	3
<b>Total Hours</b>	<b>16</b>

## YEAR 2

### FALL SEMESTER

COURSE	HOURS
MT 2205 Calculus III	5
PH 2200 General Physics II Recitation	0
PH 2203/ Physics II Lecture/ PH 2212 Lab	5
Technical Elective*	4
Technical Elective*	3
<b>Total Hours</b>	<b>17</b>

### SPRING SEMESTER

COURSE	HOURS
MT 2303 Differential Equations	3
EC 2103 Macroeconomics or EC 2203 Microeconomics	3
Technical Elective*	3
Communication Elective	3
Ethics and Social Responsibility Elective	3
<b>Total Hours</b>	<b>15</b>

### \*TECHNICAL ELECTIVE OPTIONS

EG 2003 Statics	3
EG 2103 Dynamics	3
EG 2203 C++ Programming Lecture EG 2211 C++ Programming Lab	3 1
EG 2303 Circuits	3
CH 1405 General Chemistry II Lecture/Lab	5
CH 2305 Organic Chemistry I Lecture/Lab	5
GL 1103 Geology Lecture	3
MT 2223 Engineering Statistics	3
BI 1305 General Biology	3