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THE CAREER

Generally, mathematics is a profession chosen by people who are analytical by nature and approach problems thinking critically. Many employers value these traits and the skills developed and demonstrated by mathematics majors.

A career in this field can take many forms from banking, finance, actuarial work and insurance to programming, software/systems engineering, teaching and government. Mathematics graduates also have a good record of being admitted to professional law, business and medical schools.

PROFESSIONAL TRAITS

Those pursuing a career in mathematics should:

- Be able to analyze, compare and interpret facts and figures quickly
- Have solid problem-solving and critical-thinking skills
- Be good at working with people, business systems and computers
- Have strong written, verbal and interpersonal communication skills

EMPLOYMENT AND SALARY INFORMATION

The number of mathematics jobs nationwide is increasing by at least an average rate compared to all other occupations, per the U.S. Bureau of Labor Statistics. For example, by 2020, statistician jobs are expected to increase by 14% and actuary positions by 27%.

As of May 2010, the median annual salary for four main mathematics careers (requiring at least a bachelor's degree) were:

Operation Research Analyst	$70,960
Statistician	$72,830
Actuary	$87,650
Mathematician	$99,380

THE PROGRAM

ECC students who earn their Associate of Arts Degree in Mathematics are prepared to enter an undergraduate major leading to further training and careers in this field. Through this AA degree program, students develop the foundational skills in mathematics, flexibility in thinking and intellectual sophistication necessary for career advancement.

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

This academic plan consists of the 43-credit hour general education core required of all transfer degrees plus the necessary electives in traditional mathematics, the calculus sequence, statistics, differential equations and more. In addition, the college provides various student activities, organizations and practicum experiences related to the discipline.

ADMISSION REQUIREMENTS

To enter the program, 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 (please note: some coursework requires minimum placement results)

TRANSFER OPTIONS

This curriculum is intended for students planning to transfer to a four-year institution. Many of the credits, particularly the general education electives earned with this degree, are accepted as transfer credits by four-year colleges and universities. These decisions are made solely 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.

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WWW.EASTCENTRAL.EDU

PROGRAM OF STUDY

This program of study is for a full-time student; part-time study is also available. Please see an academic advisor for course options. For the most current academic schedule (which is subject to change), visit the college Web site at www.eastcentral.edu.

YEAR 1

FALL SEMESTER

Course		Hours
FS 1000/ FS 1001	Campus Orientation/ Foundation Seminar	1
MT 1605	Analytic Geometry & Calculus I (HOT, MAI, MTH)	5
SC 1000	Laboratory Safety for Students	0
PH/CH/GL	Science Requirement (HOT, VAL, MAI)	5
EN 1223 EN 1233	English Comp I or English Comp I (Honors)	3
	Humanities Requirement (GLB, VAL)	3
	Total Hours	17

SPRING SEMESTER

Course		Hours
EN 1333 EN 1343	English Comp II or English Comp II (Honors)	3
MT 2105	Analytic Geometry & Calculus II (HOT, MTH, MAI)	5
HI 1000	Constitutions Study Module	0
	History Requirement (HOT, WRT)	3
	Biology Requirement (HOT, VAL, MAI)	5
	PE Requirement	1
	Total Hours	17

SUMMER SEMESTER

Course		Hours
	Social Science Requirement (GLB, VAL)	3
	Humanities Requirement (WRT)	3
	Total Hours	6

YEAR 2

FALL SEMESTER

Course		Hours
MT 2205	Analytic Geometry & Calculus III	5
	Humanities Requirement (GLB, VAL)	3
	Social Science Requirement (GLB, WRT)	3
	Recommended Elective*	3
	Total Hours	14

SPRING SEMESTER

Course		Hours
MT 2303	Differential Equations	3
CT 1003 CT 1103	Oral Communications (COM) or Public Speaking (COM)	3
PH/CH/MT	Elective	3-5
	Recommended Elective*	3
	Total Hours	12-14

*SUGGESTED PROGRAM ELECTIVES

Students work with an ECC advisor and the baccalaureate institution of their choice to enroll in electives that will best transfer.

- CH 1305 General Chemistry I Lecture/Lab
- CH 1405 General Chemistry II Lecture/Lab
- EG 2003 Engineering Mech-Statics
- EG 2203 C++ Program Engineers
- EG 2211 C++ Prog/Engineers Lab
- EG 2303 Introduction to Circuit Theory
- MT 2103 Statistics
- MT 2223 Engineering Statistics
- PH 2103 General Physics I Lecture
- PH 2112 General Physics I Lab
- PH 2203 General Physics II Lecture
- PH 2212 General Physics II Lab

EAST CENTRAL COLLEGE