

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 Location

The Business & Industry Center
42 Prairie Dell Plaza Drive
Union, Missouri 63084

Division

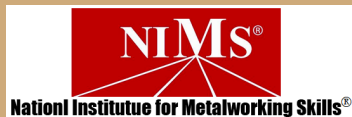
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Business and Industry
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Program Faculty

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Accreditations



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

Machinists use machine tools, such as lathes, milling machines and machining centers to produce precision metal parts. Although they may make large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. They use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications.

PROFESSIONAL TRAITS

Those pursuing a career in precision machining technology should:

- Be mechanically inclined
- Have good problem-solving abilities
- Be able to work independently
- Be able to do highly accurate work

EMPLOYMENT & SALARY INFORMATION

Per the U.S. Bureau of Labor Statistics, the manufacturing industries employing the largest number of machinists were:

- ✓ Machine shops
- ✓ Turned product and screw, nut and bolt manufacturing
- ✓ Metalworking machinery
- ✓ Employment services
- ✓ Motor vehicle parts manufacturing
- ✓ Aerospace product and parts manufacturing

In May 2013, the median hourly wage for machinists was \$19.03, or \$39,582 annually



**NATIONAL
CAREER READINESS
CERTIFICATE®**

THE PROGRAM

The Precision Machining Technology program is designed in conjunction with the region's extensive machine tool industry, students learn the latest processes of manufacturing and machining from faculty who have worked in the field. Students study in laboratories with state-of-the-art machining equipment including a Wire EDM machine. Students explore coursework leading to an Associate of Applied Science degree or certificate intended to prepare them to enter the workforce.

A consortium of the leading local companies in the field work with educators at ECC to design a program that fits the needs of students and employers. Students are well prepared to enter the workforce, and employers know that graduates of the program are trained and dependable.

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

Associate of Applied Science degrees are designed for students seeking employment immediately upon graduation. Many of the credits, particularly the general education electives earned with this program, however, are also accepted as transfer credit by four-year colleges and/or universities.

Please note that transferring credit is decided solely by the bachelor degree-granting institution. Students are advised to contact the four-year school of their choice regarding transferability before beginning a program and/or reviewing other AAS or AA degrees offered through East Central College.

PRECISION MACHINING TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE

PROGRAM OF STUDY

AAS Program (67 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. Many of these courses are also part of the Certificate of Achievement programs. For current schedule or the view a Certificate program, please visit www.eastcentral.edu.

YEAR 1

FALL SEMESTER

COURSE	HOURS
FS 1000/ FS 1001 Campus Orientation/ Foundation Seminar ^{CA} , CS	1
EN 1223 English Comp I or EN 1233 Honors English Comp I	3
MA 1013 Print Reading & Design ^{CNC, CA, CS}	3
MA 1161/ Intro to CNC Mill & Lathe Lecture / MA 1162 Lab ^{CA, CS}	3
MA 1202/ Machine Tool I Lecture/ MA 1212 Lab ^{CNC, CA, CS}	4
MT 1083 Applied Algebra & Trigonometry ^{CNC, CA, CS}	3
Total Hours	17

SPRING SEMESTER

COURSE	HOURS
MA 1221/ Machine Tool II Lecture/ MA 1223 Lab ^{CNC, CA, CS}	4
MA 1341/ Computer Aided Manufacturing Lecture/ MA 1342 Lab ^{CA}	3
MA 1421 CNC Lathe Lecture/ MA 1422 Lab ^{CNC, CA, CS}	3
COM 1003 Oral Communications or COM 1103 Public Speaking*	3
HI 1000/ Constitutions Study Module PS 1000	0
History or Political Science Requirement	3
Total Hours	16

^{CS} Course is part of the Certificate of Specialization program

^{CA} Course is part of the Certificate of Achievement program

^{CNC} Course is also part of the CNC Certificate of Achievement

YEAR 2

FALL SEMESTER

COURSE	HOURS
MA 2021/ Machine Tool III Lecture/ MA 2023 Lab ^{CA}	4
MA 2132/ CNC II Mill Lecture/ MA 2142 Lab ^{CNC, CA, CS}	4
MA 2151/ Geometric Dim Tolerance & SPC Lecture/ MA 2152 Lab ^{CNC, CA, CS}	3
IE 2123 Materials & Metallurgy ^{CNC, CA, CS}	3
Ethics and Social Responsibility	3
Total Hours	17

SPRING SEMESTER

COURSE	HOURS
EN 1403 Technical Writing	3
MA 2163 Solidworks ^{CNC, CA, CS}	3
MA 2232/ Machine Tool IV Lecture/ MA 2242 Lab ^{CA}	4
MA 2421/ Machining Capstone Lecture/ MA 2422 Lab ^{CNC, CA, CS}	3
PH 1104 Introduction to Physics Lecture/Lab	4
Total Hours	17