

Program Entrance Points & Requirements

General

To enter the PMT program, students must meet these criteria:

- ✓ High school diploma or the equivalent (documentation must be sent to the registration office)
- ✓ Application for admission to ECC
- ✓ A placement test as specified by the college (please note: some coursework requires minimum placement results)
- ✓ Be prepared to take Applied Algebra & Trigonometry or a higher level math course
- ✓ Have reading skills capable of entering English Comp I

Transitions

Qualified PMT candidates (including the under-employed, unemployed, veterans, Trade Act participants and non-traditional students) may also take advantage of **Transitions**, a conduit for students wanting to gain credentials or degrees in manufacturing programs. Transitions prepares students for success by developing math, reading, writing and career preparation skills needed in the manufacturing industry. It also explores ECC's manufacturing programs and provides students with a support system to assist them with their academic career.

Credit for Prior Learning

Because not all learning takes place in the traditional classroom setting, East Central College provides a way for qualified PMT students to translate real-world experience into academic credit. Through **ECC Credit for Prior Learning (CPL)**, students demonstrate their existing knowledge and skills through assessment tests and projects that adhere to NIMS standards. Those who meet the college-equivalent criteria will receive credit for certain classes, allowing them to complete their PMT certificate or degree in a shorter amount of time.

Dual Technical Credit

Qualified high school students can receive both secondary and college credit for certain machining courses. East Central College and Four Rivers Career Center maintain an articulation agreement making the dual technical credit program possible.

Precision Machining Technology Contacts & Location

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This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability or ownership.



Precision Machining Technology

Program of Study

- Associate of Applied Science Degree
- Certificate of Achievement
- Certificate of Specialization
- Computer Numerical Control Certificate of Achievement
- National Career Readiness Certificate

Precision Machining Technology Career

Career Overview

Machinists use specific 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.

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

In May 2012, the average wage for machinists was \$19.65 per hour, according to the U.S. Bureau of Labor Statistics.

Manufacturing industries employing the most 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



A PROFESSIONAL MACHINIST EXAMINES A PRECISION MACHINING PART.



Precision Machining Technology Degree & Certificate Tracks

Founded in 1968, **East Central College** serves over 4,000 students each semester at the main campus in Union and satellite locations in Rolla, Sullivan, Warrenton and Washington. The college offers over 50 transfer and work-ready degree and certificate programs, with 30 of those in career/technical fields such as Precision Machining Technology (PMT).

The college's PMT program is designed in conjunction with the region's extensive machine tool industry. Together, local leading companies work with educators at ECC and Four Rivers Career Center to meet the needs of both students and employers.

PMT students learn the latest processes of manufacturing and machining from experienced faculty who have worked in the field. At the ECC-Washington site (Four Rivers Career Center), they study in laboratories with state-of-the-art machining equipment. Those enrolled in the PMT program, which is accredited by the **National Institute of Metalworking Skills (NIMS)** can choose from several completion tracks:

- ✓ Associate of Applied Science (66 credit hours)
- ✓ Certificate of Achievement (44 credit hours)
- ✓ CNC (Computer Numerical Control) Certificate of Achievement (33 credit hours)
- ✓ Certificate of Specialization (30 credit hours)

In addition, students who complete certain classes within the PMT program of study will also earn the following NIMS credentials:

- Measurement, Materials and Job Safety (Level 1)
- Planning, Bench Work and Layout (Level 1)
- Manual Drill Press Operations (Level 1)
- Manual Turning Between Centers (Level 1)
- Manual Turning with Chucking (Level 1)
- Manual Milling (Level 1)
- Manual Surface Grinding (Level 1)
- CNC Milling: Programming Set-up and Operations (Level 1)
- CNC Turning: Programming Set-up and Operations (Level 1)
- CNC Milling (Level 2)
- CNC Milling (Level 2)
- EDM Wire (Level 2)

With their hands-on, professional training at ECC, students are well-prepared to obtain employment upon completing the PMT program. Moreover, local employers know that ECC graduates are suitably trained and dependable.

Program Mission Statement

*East Central College Precisions Machining Program is a career-based education/skill learning format for students planning a serious future as a professional machinist. As one of the technical education programs in a community college venue, we will provide affordable, quality training by qualified instructors. Since the machining industry is a dynamic field, the program will continuously update and revised curriculum, training methods, equipment and staff to **make our students the choice of regional employers.***



AN ECC PMT STUDENT LEARNS IN A REAL-WORLD ENVIRONMENT AT FOUR RIVERS CAREER CENTER IN WASHINGTON.