Credit for Prior Learning: Precision Machining Technology

**ECC CREDIT FOR PRIOR LEARNING (CPL)**

Learning is not confined to the traditional classroom setting. Students can also obtain valuable education and skills in other ways such as on-the-job-training or through the military, volunteer work, self-enrichment, non-credit workshops or seminars and even personal interests and hobbies.

East Central College recognizes this and provides a way for students to translate real-world experience into academic credit so they can realize their educational and career goals. Through **ECC Credit for Prior Learning (CPL)**, students are asked to demonstrate their existing knowledge and skills through assessment tests and projects that adhere to the standards of the National Institute of Metalworking Skills (NIMS). Those who meet the college-equivalent criteria will receive credit for certain classes. This allows students to progress onto the remaining coursework sooner so they can complete their certificate or degree in a shorter amount of time.

**PRECISION MACHINING TECHNOLOGY (PMT) OVERVIEW**

The **Precision Machining Technology** program is offered at the ECC site in Washington (Four Rivers Career Center). 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. They 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 leading local companies in the field work with educators at ECC and Four Rivers Career Center to design a program that fits the needs of students and employers. Students are well prepared to enter the workforce, and area employers know that graduates of the program are trained and dependable. In addition, ECC students have an opportunity to earn industry-recognized NIMS credentials and the National Career Readiness Certificate (NCRC).

**CREDIT FOR PRIOR LEARNING AND THE PMT PROGRAM**

The Precision Machining Technology program offers prior learning credit for the following courses, with a total of 16 academic credits possible:

- **MA 1202/12 Machine Tool 1 Lecture/Lab** (lecture: two credit hours; lab: two credit hours)
- **MA 1221/23 Machine Tool 2 Lecture/Lab** (lecture: one credit hour; lab: three credit hours)
- **MA 2021/23 Machine Tool 3 Lecture/Lab** (lecture: one credit hour; lab: three credit hours)
- **MA 2232/42 Machine Tool 4 Lecture/Lab** (lecture: two credit hours; lab: two credit hours)

To qualify, students must first make an appointment with the program coordinator, arrange to take assessments and pay any testing fees. In addition, tuition waivers may be available through MoManufacturingWINs funding; see the Transitions program coordinator for details.
ECC CREDIT FOR PRIOR LEARNING
Precision Machining Technology

ELIGIBLE CLASSES AND ASSESSMENT CRITERIA

The official list of Precision Machining Technology coursework that qualifies for ECC Credit for Prior Learning is outlined below. The assessment methods and costs are also detailed.

**Machine Tool 1 Lecture and Lab**
(MA 1202/12 - four credit hours)

Credit is given to students who pass these tests at 80% or better:
A. Test 1, three units total
B. Test 2, eight units total
C. Test 3, six units total
D. Shop Math Test

Students also have to do a Work Bench Part and a Lay Out Part to specification. It must be submitted and verified by the Metalworking Technical Evaluation Committee (MET-TEC) to verify.

In addition, they must pass these two NIMS online tests (registration fee $40, test fee $56):
- Measurement, Materials and Safety
- Planning, Benchwork and Layout

**Machine Tool 2 Lecture and Lab**
(MA 1221/23 - four credit hours)

Credit is given to students who pass these tests at 80% or better:
A. Test 4, three units total
B. Test 5, five units total
C. Shop Math Test

Students also have to do a Manual Drill Press Part and a Manual Turning Between Center Part to specification. It must be submitted and verified by MET-TEC.

In addition, they must pass the following NIMS online tests (cost: $56):
- Drill Press
- Turning Between Centers

**Machine Tool 3 Lecture and Lab**
(MA 2021/23 - four credit hours)

Credit is given to students who pass these tests at 80% or better:
A. Test 6, four units total
B. Shop Math Test

Students also have to do a Manual Turning and a Manual Milling Part to specification. It must be submitted and verified by MET-TEC.

In addition, they must pass these two NIMS online tests (cost $56):
- Turning-Chucking
- Vertical Milling

**Machine Tool 4 Lecture and Lab**
(MA 2232/42 - four credit hours)

Credit is given to students who pass these tests at 80% or better:
A. Test 7, three units total
B. Shop Math Test

Students also have to do a Surface Grinding Part to specification. It must be submitted and verified by MET-TEC.

In addition, they must pass this NIMS online test (cost: $28):
- Surface Grinding

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.