www.WhitewaterCareerCenter.org

PRECISION MACHINE TECHNOLOGY

WHITEWATER CAREER CENTER

PROGRAM OVERVIEW

Precision Machine Technology gives students hands-on experience with the tools and processes used across manufacturing, industry, and repair. Students start by learning the basics of measurement, layout, print reading, and the safe use of hand and machine tools. They practice setting up and operating drill presses, lathes, milling machines, and grinders while gaining a strong foundation in machining skills. The program also introduces CNC (computer numerical control) machine operation, programming, and setup.

In the second year, students advance to more complex projects that require tighter tolerances, precision measuring, and machining of parts with detailed geometry. By combining classroom instruction with extensive lab work, students graduate with the skills needed to succeed in today's manufacturing and machining industries.



>>> YOU WILL LEARN

- How to machine complex projects using tight tolerances
- How to use lathes, mills, drill presses, & surface grinders
- How to read part prints
- How to measure & check quality
- CNC set-up, programming, & operation



MEET BENTLEY

FUTURE MACHINIST.

Franklin County High School and Precision Machine Technology student at Whitewater Career Center

Early College Career Program

PRECISION MACHINE TECHNOLOGY

CERTIFICATION & DUAL CREDITS

NIMS (National Institute for Metalworking Skills) - Machining Level 1 CNC Mill Operations

Ivy Tech Dual College Credits

MTTC 101	Introduction to Machining	3 credits
MTTC 102	Turning Processes I	3 credits
MTTC 103	Milling Processes I	3 credits
MTTC 110	Turning & Milling Processes	3 credits
MTTC 105	Abrasive Processes I	3 credits
MTTC 106	Print Interpretation	3 credits
MTTC 107	CNC Setup & Operations I	3 credits
MTTC 208	CNC Mill Programming	3 credits
MTTC 209	CNC Lathe Programming	3 credits

Industry certifications are earned in year two. Dual credits are earned during year one and two.

Complete all dual credit courses to earn the Ivy Tech Certificate in Machine Tool Technology at WCC. Take general educatoin dual credit classes at your high school to work toward the next steps of a Technical Certificate and Associate in Applied Science at Ivy Tech.

* Certifications and dual credit courses offered are subject to change.

NEXT CAREER STEPS

Students who complete this program often move directly into employment with the companies where they completed their co-op experiences. Many also continue their training through employer-sponsored apprenticeship programs that can lead to advanced certifications or college degrees. Others choose to further their education by pursuing 2- or 4-year postsecondary degrees, begin careers with local machining and manufacturing businesses, or join the military to expand their technical skills and career opportunities.



POTENTIAL CAREERS

- Machinist
- Industrial Engineering Technician
- General Maintenance & Repair Worker
- CNC Machine Tool Operator
- CNC Machine Tool Programmer
- Industrial Machinery Mechanic
- Industrial Production Manager
- Mechanical Engineer
- Millwright

COURSE INFORMATION

Cluster: Advanced Manufacturing Pathway: Precision Machining

Precision Machine Technology I & II qualify as Quantitative Reasoning Courses (QR).

PRECISION MACHINE TECHNOLOGY YEAR I

DOE Course Codes:

7109	Principles of Precision Machining	1 credit per semester
7105	Precision Machining Fundamentals	1 credit per semester
7107	Advanced Precision Machining	1 credit per semester

Co-requisites: Courses must be taken concurrently
Recommended Grade Levels: 11, 12

PRECISION MACHINE TECHNOLOGY YEAR II

DOE Course Codes:

7219	Precision Machining Capstone	3 credits per semester

Prerequisite: Year I
Recommended Grade Level: 12

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WHITEWATER CAREER CENTER

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