



PRECISION MACHINE TECHNOLOGY

WHITEWATER CAREER CENTER



OVERVIEW

Precision Machine Technology is a hands-on program. You will use math skills to solve problems and machine projects. If you want to use your mechanical aptitude and have a high interest in precision work, then you should consider this program.



YOU WILL LEARN

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



A TYPICAL STUDENT

The typical student is one that enjoys hands-on learning and has solid math skills to be successful. There will be a significant emphasis on measuring and meeting tolerance requirements at the beginning of the first-year program. These skills will be necessary for the second year of the program, further training, and a career in machining. Successful students have the patience and attention to detail to solve problems using the skills they have learned. They can work on projects independently or with other students. They take initiative, check their work as needed, and stay on task without constant supervision. Safety is a primary focus, and students must follow the guidelines to keep themselves and others safe.



GET YOURSELF READY

To be prepared, focus on doing well in algebra and geometry courses. Employment and admission into apprenticeship programs and specialty training programs can be competitive. To increase your chances, do your best in all high school courses. The following courses will help prepare you for the Precision Machine Technology career program, further education and training, and a career in the machining industry:

- Algebra I
- Geometry
- Introduction to Manufacturing
- Introduction to Engineering Design (PLTW-IED)
- Principles of Engineering (PLTW-POE)





POTENTIAL CAREERS

- Machinist & Tool and Die Maker
\$41,510
- Quality Control Inspector
\$35,330
- Industrial Engineering Technician
\$53,370
- General Maintenance & Repair Worker
\$36,170
- Metal & Plastic Machine Worker
\$33,550
- Industrial Machinery Mechanic
\$47,450
- Industrial Production Manager
\$92,470
- Mechanical Engineer
\$83,060

All career and salary information is cited from the Bureau of Labor Statistics.



YEAR ONE

Precision Machining I is designed to provide students with a basic understanding of the precision machining processes used in industry, manufacturing, maintenance, and repair. The program provides instruction and lab experience in industrial safety, terminology, hand and machine tools, measurement, and layout. Students will become familiar with print reading and with the setup and operation of power saws, drill presses, lathes, milling machines, and grinders. Students will also be exposed to an introduction to CNC (computer numerical control) machines.

Vincennes Dual College Credits		
PMTD 110	Manufacturing Processes	2 credits
PMTD 110L	Manufacturing Processes Lab	1 credits
Ivy Tech Dual College Credits		
MTTC 102	Turning Processes I	3 credits
MTTC 110	Turning & Milling Processes	3 credits



YEAR TWO

Precision Machine Technology II is a more in-depth study of skills learned in Precision Machine Technology I, with a stronger focus in CNC setup, programming, and operation. Projects concentrate on precision set-up and inspection work as well as machine shop calculations. Students develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. Successful students may participate in internships at local companies.

Industry Certifications		
NIMS (National Institute for Metalworking Skills) Level 1 Online Theory Exam		
Vincennes Dual College Credits		
PMTD 120	General Machines	3 credits
Ivy Tech Dual College Credits		
MTTC 105	Abrasive Processes I	3 credits



WHEN YOU FINISH

Students completing this program generally continue their education at the postsecondary level in 2 and 4-year degree programs or begin their careers in local machining businesses. Students also enter apprenticeship programs for specific machining-related trades.



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