



Pine Technical & Community College

PRECISION MACHINING TECHNOLOGY

Transform raw materials into precision-engineered components. PTCC's Precision Machining AAS program provides hands-on training in manual machining, CNC operations, CAD/CAM software, metallurgy, and blueprint reading. Students apply lean manufacturing practices while completing collaborative projects, industry internships, or capstone experiences that mirror real industry demands. Graduates are prepared for high-skill careers in precision manufacturing.



COLLEGE CATALOG 2026-27



28 Credits
Earns a Certificate

+



45 Credits
Earns a Diploma

+



60 Credits
Earns an AAS



\$242 per Credit
on Average



18:1 Student/Instructor
Ratio on Average

Program Delivery Mode: On-Campus

Precision Machining Technology Certificate

(28 credits)

General Education Courses

COCP 1201 Computer Concepts and Applications2

Technical Education Courses

*MTTP 1208 Measuring Tools1

*MTTP 1220 Blueprint Reading I2

MTTP 1241 Intro. to Computer Aided Design (CAD)3

*MTTP 1245 Machining Fundamentals I4

MTTP 1256 Applied Machining Theory3

MTTP 1262 Blueprint Reading II2

*MTTP 1265 Machining Fundamentals II4

MTTP 1279 CNC Set-Up & Operate4

MTTP 2263 Quality in Manufacturing2

WELD 1570 Metallurgy and Mechanical Properties of
Materials1

Total Credits 28

Precision Machining Technology Diploma

(17 additional credits)

General Education Courses

ENGL 1276 College Composition or

ENGL 1277 Technical Communications4

Technical Education Courses

MTTP 1261 Introduction to Computer Aided
Manufacturing (CAM).....2

MTTP 1277 Machining Processes2

MTTP 2255 CNC Programming5

MTTP 2260 Cutting Tool Technology1

Technical Elective(s).....3

Total Credits 45

Precision Machining Technology Associate of Applied Science

(15 additional credits)

General Education Courses

MATH 1260 College Algebra or
MATH 1256 Mathematical Thinking3

General Education Electives

MnTC Goal Area 1 Communication3

MnTC Goal Areas 1-10.....6

Technical Education Courses

MTTP 2290 Manufacturing Capstone Project or
MTTP 2268 Machining Internship3

Total Credits 60

A Student must attain a grade of 'C' or better in designated () courses and final cumulative GPA of 2.0 or higher to graduate. The requirements of this program are subject to change without notice.

Recommended Course Sequence for Completion in 2 Years

First Fall

ENGL 1277 Technical Communications or	
ENGL 1276 College Composition	4
MTTP 1208 Measuring Tools	1
MTTP 1220 Blueprint Reading I	2
MTTP 1245 Machining Fundamentals I	4
MTTP 1256 Applied Machining Theory	3
COCP 1201 Computer Concepts and Applications	2
Total Credits	16

First Spring

MTTP 1241 Intro. to Computer Aided Drawing (CAD)	3
MTTP 1265 Machining Fundamentals II	4
MTTP 1262 Blueprint Reading II	2
MTTP 1279 CNC Set-up & Operate	4
MTTP 2263 Quality in Manufacturing	2
WELD 1570 Metallurgy and Mechanical Properties of Materials	1
Total Credits	16

Precision Machining Certificate Earned!

Second Fall

MTTP 1261 Intro. to Computer Aided Machining (CAM) ...	2
MTTP 1277 Machining Processes	2
MTTP 2255 CNC Programming	5
MTTP 2260 Cutting Tool Technology	1
Technical Elective for Diploma	3
Total Credits	13

Precision Machining Technology Diploma Earned!

Second Spring

MTTP 2290 Manufacturing Capstone or	
MTTP 2268 Machining Internship MTTP 2268	3
MATH 1260 College Algebra or	
MATH 1256 Mathematical Thinking	3
MnTC Goal Area 1 Elective	3
MnTC Goal Area 2-3 or 6-10	6
Total Credits	15

TOTAL DEGREE CREDITS **60**

Precision Machining Technology AAS Earned!

Career Outlook

Possible Job Titles

- CNC Machinist
- Machinist
- Tooling Technician



7.6%
MN Projected
Growth % (2022-2032)



\$60,900
MN Median Annual
Wage (\$) (approx.)

*Data from ONET & MN DEED

Get the Credit You Deserve!

What is Credit for Prior Learning (CPL)?

PTCC awards college credit for knowledge gained outside the classroom, including work and life experience.

You may qualify through:

- Job skills/work experience
- Employer training
- Military education
- Industry certifications
- Volunteer service
- Self-study
- High school articulated credit
- Standardized exams

Getting Started is Easy:

- Visit mycpl.minnstate.edu to view eligible courses and requirements.
- Contact records@pine.edu for guidance on options, assessments, and any applicable fees.

New to PTCC? Visit Campus!

- Take a campus tour
- Learn about scholarships
- Meet the admissions team
- Tour housing and The REC

Book an Appointment to Explore PTCC!



Sign up to visit in person, or virtually, to learn more about PTCC programs, admissions requirements, housing options, and more.

www.pine.edu/visit



Apply Today!

www.pine.edu/apply

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