

The certificate of proficiency and the technical certificate programs give the student the opportunity to earn certificates while completing steps toward an Associate of Applied Science degree.

2025-2026



TECHNICAL CERTIFICATE PLAN MACHINING TECHNOLOGY

Degree Code: 1495; CIP Code: 48.0510

All technical certificate-seeking students must meet the freshman assessment and placement requirements.

If deficiencies exist, the student must complete the required CPT courses.

**A 2.0 GPA is required for graduation from the
Technical Certificate in Machining Technology program.**

**ATTENTION STUDENTS: PLEASE SEE CURRENT CATALOG FOR
ALL FEES AND CHARGES ASSOCIATED WITH THIS CERTIFICATE.**

Machinists are precision instrument makers who fabricate, modify, or repair mechanical instruments. They may also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

Student Learning Outcomes for TC Machining Technology Program

1. Identify the different types of metal between Steel, Aluminum, Copper, Brass and Stainless Steel.
2. Demonstrate proficiency with precision measurement tools.
3. Exhibit ability to select, maintain, and utilize manual machining equipment.
4. Demonstrate proficiency setting tool and work offsets for various CNC operations.
5. Demonstrate understanding of g-code.
6. Exhibit competency in the setup and operation of CNC machines.
7. Demonstrate ability to read and understand basic engineering drawings.

In addition to these program-specific outcomes, students will have demonstrated a proficiency in the following general outcomes:

8. Composition and Oral Communication.
9. Utilization of technology appropriate to degree or field of study.

Name: _____
Advisor: _____

Date: _____
Student ID# _____

COURSE CODE COURSE NAME

General Education (3 credit hours)

CIS	1053	Computer Essentials	3	_____
ENG	1003	Composition I (must earn a "C" or better) OR		_____
ENG	1103	Career Writing (must earn a "C" or better)	3	_____

Machining Core (32 credit hours)

MACH	1002	Metallurgy	2	_____
MACH	1004	Introduction to Machining	4	_____
MACH	2004	Machining I	4	_____
MACH	2014	Machining II	4	_____
MACH	2018	CNC Set-up, Operations and Programming	8	_____
TECH	1012	Employment Strategies	2	_____
TECH	1044	Computer Aided Design (CAD)	4	_____
TECH	2154	Industrial Mechanical Systems	4	_____

Program Total 38 Hours