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.



## 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. Demonstrate ability to read and understand basic engineering drawings.
- 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.

In addition to these program-specific outcomes, the following general outcomes should apply:

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

Name:			Date:	
Advisor:			Student ID#	
			CREDIT	HOURS
COURSE CODE		<u>COURSE NAME</u>	HOURS	<u>COMPLETED</u>
General Education (3 credit hours)				
CIS	1053	Computer Essentials	3	
ENG ENG	1003 1103	Composition I (must earn a "C" or better) <b>OR</b> 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**

2023-2024