

# Machining Apprenticeship

TrainWith  
CTS

The Machining Certificate is designed to meet the needs of a diverse vocational audience. Whether your interest is in computer numerical control programming, tool and die maker or pattern-maker, this program is designed to prepare the learner for a number of advantages as a skilled tradesman.

CNC, or computer numerical control machining, has literally replaced the machinist trade. You will be trained in the proper use of mills, drills and lathes, the latest in programming software as well as set-up and operational procedures of CNC equipment to produce a precision part.

As a pattern-maker trainee, you will learn the most up-to-date technology needed to build a pattern. To obtain this skill level, the learner will become knowledgeable of the properties of metals, precision measurement and the fundamentals of repairing molds and dies.

The tool and die maker will learn how to create tools, dies and fixtures. This individual will gain a broad understanding of tooling by learning how to properly use mills, drills, lathes and other machining related equipment including non-traditional machining techniques such as the Electrical Discharge Machine.

For more information on how to start an Apprenticeship Program at your facility please contact:

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Workforce and Apprentice  
Program Manager  
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**Successful completion of program will result in the following credentials:**

- Machining Certificate from Northwest State Community College

Students must attain a minimum grade of a "C" in these technical courses in order to progress in program.



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PROGRAM SEQUENCE - *(Full-time attendance)*

<u>First Semester - 1st 8 Weeks</u>		<u>Credits</u>
IND107	Print Reading & Sketching	3
IND110	Industrial Computing	3
IND105	Industrial Safety	2
IND132	Bench Work	2
<u>First Semester - 2nd 8 Weeks</u>		<u>Credits</u>
IND103	Applied Geometry & Trigonometry	3
WLD110	Intro to Applied Welding Techniques	3
IND140	Principles of Machining	3
<u>Second Semester - 1st 8 Weeks</u>		<u>Credits</u>
IND100	Precision Measurement	3
IND240	Machining Processes II	3
	Communications Elective	3
<u>Second Semester - 2nd 8 Weeks</u>		<u>Credits</u>
IND241	Tooling & Fixtures	3
IND141	Metallurgy & Heat Treatment	3
MET222	Programming CNC	3
Total Program Credit Hours		36