

# MACHINIST APPRENTICESHIP

## Overview

### Machinist Apprenticeship

**Program Code: 50-420-2**

For more information: [wctc.edu/machine-appr](http://wctc.edu/machine-appr) (<http://www.wctc.edu/machine-appr/>)

Machinists operate a variety of computer- and mechanically controlled machine tools to produce intricate, precision parts that are used in different industries. They possess the skills to take a single part through an entire operational procedure to completion. Receive high-quality, hands-on classroom instruction that complements on-the-job apprenticeship training critical for success in the industrial trades.

**The minimum required course grades and program grade point average (GPA) for students under this catalog are:**

Core Courses = C

Program GPA = 2.0

**Build your degree along a career pathway.** Start with a couple of courses or an entry-level credential to enter the job market in your area of interest, then continue with higher credentials on your educational path for job advancement and higher wages.

## Career Pathway

1. Machinist Apprenticeship
2. Technical Studies - Journeyworker

### Additional details regarding apprenticeship:

- Obtain further information about apprenticeship programs by visiting the State's Department of Workforce Development website: <https://dwd.wisconsin.gov/apprenticeship> (<https://dwd.wisconsin.gov/apprenticeship/>)
- Secure employment as a State of Wisconsin Indentured Apprentice.
- WCTC will send the schedule to the student; application to WCTC is not necessary by the student.

## Learning Outcomes

### Program Outcomes

1. Inspect parts and materials.
2. Operate milling machines, including manual and/or CNC controlled.
3. Operate drilling machines, including manual and/or CNC controlled.
4. Operate turning machines, including manual and/or CNC controlled.
5. Operate precision grinding machines, including manual and/or CNC controlled.
6. Operate cut-off machines, including manual and/or CNC controlled.
7. Apply metallurgical principles to materials and work process.
8. Assemble parts according to specifications.

## Critical Life Skills

To help our students prepare for success in a workplace and society that is **increasingly global, multi-cultural, and collaborative**, all students are given opportunities to develop and demonstrate Critical Life Skills, both

in and out of the classroom. The following Critical Life Skills are learning outcomes for WCTC students.

- **Communication:** Demonstrate appropriate communication.
- **Critical Thinking/Problem Solving:** Demonstrate critical thinking skills to analyze situations and solve problems.
- **Relationships:** Demonstrate effective interpersonal skills.
- **Self-management:** Demonstrate responsible and respectful behavior.

## Required Courses

Code	Title	Credits
<b>Core Courses</b>		
420-504	Safety Machine Tool Apprentice	0.5
Approved Substitute: 420-321		
420-505	OSHA Machine Trade Apprentices	0.5
Approved Substitute: 420-321		
420-551	Engineering Drawings Appr	1
Approved Substitutes: 420-520 OR 420-520A		
420-552	Machine Process 1 Apprentices	1
Approved Substitutes: 420-520 OR 420-520B		
420-553	Machine Tool Theory 1 Appr	1
Approved Substitutes: 420-520 OR 420-520C		
420-554	GD&T Apprentices	1
Approved Substitutes: 420-521 OR 420-521A		
420-555	Machine Process 2 Appr	1
Approved Substitutes: 420-521 OR 420-521B		
420-556	Machine Tool Theory 2 Appr	1
Approved Substitutes: 420-521 OR 420-521C		
420-561	Solidworks Machinist Appr	1.75
Approved Substitutes: 420-527 OR 420-527A		
420-562	CNC Machining Ctr Appr	1.75
Approved Substitutes: 420-525 OR 420-525B		
420-563	Comp Assist Prog Machinist App	1.75
Approved Substitutes: 420-525 OR 420-525A		
420-564	CNC Turning Ctr Appr	1.75
Approved Substitutes: 420-527 OR 420-527B		
<b>General Studies</b>		
804-504	Industrial Math I	1
Approved Substitutes: 804-304 OR 804-107 OR 804-113 OR 804-114 OR 804-115		
804-505	Industrial Math II	1
Approved Substitutes: 804-305 OR 804-107 OR 804-113 OR 804-114 OR 804-115		
<b>Total Credits</b>		<b>16</b>

## Full-time Plan

### First Year

Fall Term 1		Credits
420-551	Engineering Drawings Appr	1
420-552	Machine Process 1 Apprentices	1
420-553	Machine Tool Theory 1 Appr	1
804-504	Industrial Math I	1
<b>Credits</b>		<b>4</b>

**Spring Term 1**

420-554	GD&T Apprentices	1
420-555	Machine Process 2 Appr	1
420-556	Machine Tool Theory 2 Appr	1
804-505	Industrial Math II	1
<b>Credits</b>		<b>4</b>

**Second Year****Fall Term 1**

420-504	Safety Machine Tool Apprentice	0.5
420-561	Solidworks Machinist Appr	1.75
420-562	CNC Machining Ctr Appr	1.75
<b>Credits</b>		<b>4</b>

**Spring Term 1**

420-505	OSHA Machine Trade Apprentices	0.5
420-563	Comp Assist Prog Machinist App	1.75
420-564	CNC Turning Ctr Appr	1.75
<b>Credits</b>		<b>4</b>
<b>Total Credits</b>		<b>16</b>