

MACHINIST APPRENTICESHIP

Overview

Machinist Apprenticeship

Program Code: 50-420-2

For more information: 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
Core Courses		
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		
General Studies		
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		
Total Credits		16

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
Credits		4

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
Credits		4

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
Credits		4

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
Credits		4
Total Credits		16