



Machine Tool Operations

TECHNICAL DIPLOMA

Program Code: 31-420-1

Downtown Milwaukee Campus

Learn in-demand skills for machine tool operations. Students gain hands-on experience in Computer Numerical Control (CNC) machine setup and operation.

Career Outlook

CNC machine tool operators with up-to-date experience are in demand.

You can earn the CNC Setup and Operations certificate on the way to completing this program. After earning this diploma, you can apply your credits toward completing the CNC Technician technical diploma.

Program Learning Outcomes

- Apply basic safety practices in the machine shop
- Interpret industrial/engineering drawings
- Apply precision measuring methods to part inspection
- Perform basic machine tool equipment setup and operation
- Perform programming, setup and operation of CNC Machine Tools

Admission Requirement

- A high school diploma or GED

Note: Students will need a tablet or mobile device to complete course requirements.



Manufacturing, Construction & Transportation
MILWAUKEE AREA Technical College

| COURSES | Credits |
|---|---------|
| MACHTL-360 Metrology ^..... | 1 |
| MACHTL-367 Machine Tool Technology | 1 |
| MACHTL-384 Machine Trades Mathematics 1 ^..... | 1 |
| MDRAFT-385 Machine Blueprint Reading 1 ^..... | 1 |
| MACHTL-300 Engine Lathe 1 (Turning)..... | 3 |
| MACHTL-301 Engine Lathe 2 (Turning) ‡..... | 3 |
| MACHTL-309 Manual Vertical Milling Machine 1 ^..... | 3 |
| MACHTL-310 Manual Vertical Milling Machine 2 ‡ ^ ... | 3 |
| ENG-340 Workplace Communication | 2 |
| (or) ENG-195 Written Communication ‡ | |
| MACHTL-304 Introduction to CNC Programming ‡ ^ ... | 1 |
| MACHTL-385 Machine Trades Mathematics 2 ‡ ^ | 1 |
| MACHTL-391 Quality Control ‡ | 1 |
| MDRAFT-386 Machine Blueprint Reading 2 ‡ ^ | 1 |
| MACHTL-320 Introduction to CNC Turning Centers ‡ | 4 |
| MACHTL-322 Introduction to CNC Vertical Machining Centers ‡ ^ | 4 |
| MACHTL-325 Surface Grinding | 4 |
| TOTAL CREDITS: 34 | |

‡ Prerequisite required.
^ Counts toward earning the CNC Setup
and Operations certificate.
Program curriculum requirements are subject to change.

Current MATC students should consult their
Academic Program Plan for specific curriculum
requirements.

Possible Careers

- CNC Setup and Operator - Turning and Vertical
- Manual Lathe and Milling Machine Setup and Operator
- Quality Inspector
- Grinder
- Apprenticeship
- Multi-Spindle Machine/Setup Operator
- Single-Spindle Screw Machine Operator
- CNC Swiss Operator
- Tool Room Machinist

Related Programs

- CNC Setup and Operations
- Computer Numerical Control (CNC) Technician
- Tool and Die Making





matc.edu or 414-297-MATC
Wisconsin Relay System 711

Downtown Milwaukee Campus
700 West State Street

Mequon Campus
5555 West Highland Road

Oak Creek Campus
6665 South Howell Avenue

West Allis Campus
1200 South 71st Street

**MATC Education Center
at Walker's Square**
816 West National Avenue, Milwaukee