



Machine Tool Operations

TECHNICAL DIPLOMA

Program Code: 31-420-1

Downtown Milwaukee Campus

Students will choose one of the two groups of courses: Computer Numerical Control (CNC) machine setup and operation, or CNC Swiss turning center setup and operation.

Career Outlook

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

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 set-up and operation
- Perform programming, set-up and operation of CNC machine tools

Admission Requirements

- High school diploma or GED

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



matc.edu/academic_programs/pathways

After completing this program, your credits can be applied to earning the CNC Technician technical diploma.

 **MILWAUKEE AREA Technical College**
School of TECHNOLOGY and APPLIED SCIENCES

COURSES

Credits

(1) MACHTL-360	Metrology	1
(1) MACHTL-367	Machine Tool Technology	1
(1) MACHTL-384	Machine Trades Mathematics 1	1
(1) MDRAFT-385	Machine Blueprint Reading 1	1
(2) MACHTL-304	Introduction to CNC Programming ‡ ..	1
(2) MACHTL-385	Machine Trades Mathematics 2 ‡	1
(2) MDRAFT-386	Machine Blueprint Reading 2 ‡	1
(2) MACHTL-391	Quality Control ‡	1
(2) ENG-340	Workplace Communication	2

Select one of the following groups of courses:

CNC MACHINE SETUP AND OPERATION

(1) MACHTL-300	Engine Lathe 1	3
(1) MACHTL-301	Engine Lathe 2	3
(1) MACHTL-309	Manual Vertical Milling Machine 1	3
(1) MACHTL-310	Manual Vertical Milling Machine 2	3
(2) MACHTL-320	Introduction to CNC Turning Centers ..	4
(2) MACHTL-322	Introduction to CNC Vertical Machining Centers	4
(2) MACHTL-325	Surface Grinding	4

CNC SWISS TURNING CENTER SETUP AND OPERATION

(1) MACHTL-347	Single-Spindle Auto Screw Machine 1 ..	3
(1) MACHTL-348	Single-Spindle Auto Screw Machine 2 ..	3
(1) MACHTL-361	Multiple-Spindle Auto Screw Machine 1 ‡	3
(1) MACHTL-362	Multiple-Spindle Auto Screw Machine 2 ‡	3
(2) MACHTL-371	CNC Swiss Turning Center 1	4
(2) MACHTL-372	CNC Swiss Turning Center 2	4
(2) MACHTL-373	CNC Swiss Turning Center 3	4

TOTAL CREDITS: 34

() Semester order for full-time students.

‡ Prerequisite required.

Program curriculum requirements are subject to change.

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

For complete information, go to matc.edu/tas

To apply for financial aid, visit fafsa.gov
School Code: 003866

Possible Careers

- CNC Setup and Operator
- Manual Lathe and Milling Machine Setup and Operator
- CNC Swiss Turning Center Setup and Operator

(For full description, see matc.edu.)

Related Programs

- Computer Numerical Control (CNC) Technician
- Tool and Die Making
- Advanced Metal Fabrication



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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