

Tool and Die Making

PROGRAM CODE: 32-439-1

TD

Technical Diploma



Location: Downtown Milwaukee Campus (year one only), Oak Creek Campus

Start Dates: August and January

Admission Requirement: High school diploma or equivalent recommended

Financial Aid Eligible: Yes. Use code 003866 at fafsa.gov.

Program Description

This is a four-semester, full-time, day program; the first two semesters are common with the one-year Machine Tool Operations program. All courses within the first year are based on the National Institute for Metalworking Skills (NIMS) Machining Level One Skill Standards in nine separate skill areas. During the third and fourth semesters, you will learn how to build and sample basic stamping dies and plastic injection molds.

Career Outlook

There is an ongoing need for highly skilled tool and die makers and mold makers.

Program Learning Outcomes

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



Complete Program Details

QUESTIONS? 414-297-8901 or mctpathway@matc.edu

COURSES

CREDITS

MACHTL-300	Engine Lathe 1 (Turning).....	3
MACHTL-301	Engine Lathe 2 (Turning) ‡.....	3
MACHTL-309	Manual Vertical Milling Machining 1 ^.....	3
MACHTL-310	Manual Vertical Milling Machining 2 ‡ ^.....	3
MACHTL-360	Metrology ^	1
MACHTL-367	Machine Tool Technology.....	1
MACHTL-384	Machine Trades Mathematics 1 ^	1
MDRAFT-385	Machine Blueprint Reading 1 ^	1
ENG-340	Workplace Communication..... (or) ENG-195 Written Communication ‡	2
MACHTL-304	Introduction to CNC Programming ‡ ^.....	1
MACHTL-320	Introduction to CNC Turning Centers ‡.....	4
MACHTL-322	Introduction to CNC Vertical Machining Centers ‡ ^.....	4
MACHTL-325	Surface Grinding	4
MACHTL-385	Machine Trades Mathematics 2 ‡ ^	1
MACHTL-391	Quality Control ‡.....	1
MDRAFT-386	Machine Blueprint Reading 2 ‡ ^	1
MACHTL-386	Machine Trades Mathematics 3 ‡.....	1
MTLGY-301	Basic Heat Treatment of Metals.....	1
TDMKG-360	Basic Die Making Technology.....	1
TDMKG-366	CNC Programming 2 ‡.....	1
TDMKG-371	Stamping Die Making 1 ‡.....	4
TDMKG-372	Stamping Die Making 2 ‡.....	4
TDMKG-373	Stamping Die Making 3 ‡.....	4
MACHTL-387	Machine Trades Mathematics 4 ‡.....	1
TDMKG-361	Advanced Die Making Technology ‡.....	1
TDMKG-362	Cavity Die Technology	1
TDMKG-367	Basic CAD/CAM ‡.....	1
TDMKG-381	Moldmaking 1 ‡.....	4
TDMKG-382	Moldmaking 2 ‡.....	4
TDMKG-383	Moldmaking 3 ‡.....	4

CREDITS

Total credits needed to complete this diploma

66

‡ 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.

MATC courses are offered in person, entirely online or partially online. Check each course's delivery options in Self-Service at selfservice.matc.edu.