TOOL AND DIE TECHNOLOGIES APPRENTICESHIP

Program Number: 50-439-4
Apprenticeship
Campus: West Bend
This program is **not** eligible for financial aid

Earn money working in the field and gain hands-on training paid for by your employer in the Tool and Die Technologies apprenticeship program at Moraine Park Technical College.

About the Apprenticeship

Apprenticeships allow you to earn money while learning a trade, primarily on the job (and one day a week in the classroom) by working in the tool and die industry. Through Moraine Park's Tool and Die Technologies apprenticeship, students work in the machine tool trade gaining insight into the high degree of precision needed in the creation of various parts, fixtures and products utilized in the industry. Once primarily a metalworking trade, tool and die machining is now included in the plastics and wood industries. Almost all products used today have been influenced by the tool and die industry. From design specification and drawings, skilled workers in the tool and die/machine trades utilize power machining tools, hand tools and computer-driven machines to create desired products.

What You'll Learn

Participants in the tool and die maker apprenticeship practice safety regulations, learn how to interpret prints and specifications, perform trade math calculations, determine the effects of material type on machining, explain applications of the machine tool industry, operate a CAM system and operate a CAD system.

The apprentice training periods include classes held one day a week for two years. Students are also required to complete a First Aid/CPR and Transition to Trainer class.

Additional Information

Learn more at www.wisconsinapprenticeship.org (http://www.wisconsinapprenticeship.org)

Application/Admission Information

Students interested in an apprenticeship do not complete standard admissions with Moraine Park.

Interested students/employers should contact the training representative listed below to start the apprentice/employer apprenticeship contract application:

Lavelle Gill, Apprenticeship Training Representative
Phone: (262) 340-1143
Email: almonl.gill@dwd.wisconsin.gov

Learn more at www.wisconsinapprenticeship.org (https://dwd.wisconsin.gov/apprenticeship/)

Application Requirements

Applicants should be 18 years of age and submit an apprentice/employer application to the Bureau of Apprenticeship Standards. Applicants must have a high school diploma or equivalent and be physically able to perform required work practices safely. Classes in algebra, geometry, trigonometry and machine shop experience are beneficial.

Training Period (Years)	Definition
5	Tool and Die Maker
4	CNC Machinist
3	EDM Operator
4	Machinist
4	Tool Maker
5	Mold Maker

The apprentice training periods listed above include on-the job and in-class training.

Approximate Costs

NOTE: The fees below are 2025-2026 fees. They will be updated when 2026-2027 fees are approved.

Tuition

Occupational

- $152.85 per credit (resident)
- $229.28 per credit (out-of-state resident)

Associate of Arts/Associate of Science

- $192.20 per credit (resident)
- $288.30 per credit (out-of-state resident)

Online students are not charged out-of-state fees.

Student Fees

- $5.00 minimum per course Material Fee
- $13.76 per-credit Supplemental Fee for Undergraduate courses
- $4.50 per term mandatory Student Accident Insurance Fee

Please refer to Tuition & Fee Information (https://catalog.morainepark.edu/admissions-registration/tuition-fee-information/) for additional enrollment fee information.

Working Conditions

Most businesses and manufacturers employing individuals in the Tool and Die Technologies areas are clean, well-lit and well-ventilated. Noise levels may be higher for some jobs. Safety glasses and steel-toed shoes are usually required.

Tools and Equipment

Individuals employed in the area of the Tool and Die Technologies provide many of their own hand tools, such as three or more sets of micrometers, vernier calipers, a pair of V blocks, protractors, scales, steel rulers, allen wrenches, open- and box-end wrenches, dial indicators, surface gauges, parallels, scribes, punches and depth gauges. Employers provide the machine tools such as milling machines and lathes.

Course Requirements

Course	Title	Credits
Semester 1		
420-563	Machine Technology	1

420-580	2D CAD	1
421-555	Blueprint Reading	1
804-582	Mathematics 1	1
	Credits	**4**
Semester 2		
420-565	Computer Numerical Control	1.5
420-572	3D CAD	1.5
804-583	Mathematics 2	1
	Credits	**4**
Semester 3		
420-579	Introduction to Computer-Aided Manufacturing	1
420-586	Die Making	1
422-505	Metallurgy	1
804-584	Mathematics 3	1
	Credits	**4**
Semester 4		
420-520	Mold Making	1
420-561	Jigs and Fixtures	0.5
420-571	Sinker/Wire EDM	1.5
804-585	Mathematics 4	1
	Credits	**4**
	Total Credits	**16**

Required state paid instruction hours = 576

Classes are held one day per week for two years. This apprenticeship program requires Related Electives, including First Aid/CPR and Transition to Trainer classes. Please contact your Apprenticeship Coordinator for courses.

Program Outcomes

- Inspect parts and material
- Apply knowledge of milling machine operations, including manual and/or CNC controlled
- Apply principles of drilling machine operations, including manual and/or CNC controlled
- Compare turning machine operations, including manual and/or CNC controlled
- Explore precision grinding machine operations including manual and/or CNC controlled
- Compare cut-off machine operations, including manual and/or CNC controlled
- Apply metallurgical principles to materials and work processes
- Compare practices for assembling parts per specifications
- Design jigs and fixtures
- Summarize practices to produce dies for a variety of machining and manufacturing operations
- Local optional work processes may be used as additional college program outcomes

Career Opportunities

- Programmer
- Tool Maker
- Machinist
- CNC Machinist
- EDM Machinist
- Tool and Die Maker
- Designer
- Die Maker
- Mold Maker