

Tool and Die Maker

A 5-year, 16-credit Apprenticeship (2 years of related instruction)

About the Apprenticeship

A tool and die maker operates various machine tools to make and repair plastic molds, special machinery, tools, dies, jigs, fixtures and die cast dies. Tool and die makers usually specialize in one or two of those areas. In related Tool & Die Maker apprenticeship instruction, students will learn basic theory in machining, blueprint reading, and metallurgy in addition to advanced theory in stamping, blanking, jigs and fixtures, plastics and die casting. Computer-assisted machining and die design are also covered.

How to Get Started

- Obtain employment with approval for apprenticeship training.
- The State of Wisconsin oversees the apprenticeship system and will contact WCTC to set a class schedule.
- The schedule will be sent to the student from WCTC (application to WCTC is not necessary by the student).
- For further information, contact the local apprenticeship representative at 262.695.7778 or www.wisconsinapprenticeship.org

Required Courses	Credits
First Semester	
420-520 Metals Trade Theory I	3
804-504 Industrial Math I	1+
Total semester credits	4
Second Semester	
420-521 Metals Trade Theory II	3
804-505 Industrial Math II	1+
Total semester credits	4
Third Semester	
439-570 Tool & Die Theory I	3.5
801-500 Applied Communication	.5
Total semester credits	4
Fourth Semester	
439-575 Tool & Die Theory II	3.5
809-551 Human Relations - Apprentice	.5
Total semester credits	4
+ Proficiency exam available	
<i>Curriculum is current as of catalog printing. The most current curriculum requirements for graduation will be provided upon admission to program, or review at www.wctc.edu.</i>	

Tool and Die Maker Required Courses

- 420-520 Metals Trade Theory I** 3
 Become familiar with basic theory related to topics such as in machining, blueprint reading, metallurgy, foundry, measurement, and safety in order to establish a solid foundation on which more specialized units – such as plastic moldmaking, stamping dies, CNC machining, and jig and fixture design – can be built.
- 420-521 Metals Trade Theory II** 3
 Explore topics including welding, milling machines, mechanical motions, electrical principles, layout, drill press, grinding, boring bar, jig boring, shapers, and planers.
- 439-570 Tool & Die Theory I** 3.5
 Start on the path from tool and die apprentice to journeyman as advanced trade theory in stamping, blanking, jigs and fixtures, plastics, and die casting is explored. Become familiar with special machines used in the field.
- 439-575 Tool & Die Theory II** 3.5
 Continue on the path from tool and die apprentice to journeyman by exploring advanced trade theory in stamping, blanking, jigs and fixtures, plastics, and die casting. Become familiar with special machines used in the field.

- 801-500 Applied Communication** .5
 Enhance interpersonal communication skills, especially the oral and listening skills needed by those in apprentice programs.
- 804-504 Industrial Math I** 1
 Refresh knowledge of applied arithmetic, ratio, and proportion. Develop skills in applied algebra.
- 804-505 Industrial Math II** 1
 Study concepts within applied geometry and applied trigonometry during this individualized course. Apply these topics to industrial problems. Prerequisites: 804-504 Industrial Math I
- 809-551 Human Relations - Apprentice** .5
 Study the psychological principles of human relations that will assist in adaptation to the world of work and adjustment to personal and occupational relationships.