

Injection Mold Setup (Plastic)

A 4-year, 16-credit Apprenticeship (2 years of related instruction)

About the Apprenticeship

WCTC is the only site in the state that offers apprentice-related instruction in Injection Mold Setup. In the apprenticeship coursework, students will learn about topics relating to electricity and electronics, fluid power and pneumatics and math. In addition, injection mold setup classes will include the study of blueprint reading, quality control, mold drawing, plastic materials, molding processes and inspection.

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	
462-506 Schematics-Injection Mold Setup	1
463-500 Injection Mold Setup Related I	2
804-504 Industrial Math I	1+
Total semester credits	4
Second Semester	
463-501 Injection Mold Setup Related II	2
804-505 Industrial Math II	1+
809-500 Vital Problem Solving	1
Total semester credits	4
Third Semester	
419-502 Pneumatics for Apprentices	1
463-502 Injection Mold Setup Related III	2
623-500 Statis Proc Control - Apprent	1
Total semester credits	4
Fourth Semester	
414-500 Electricity-Apprentices	1
419-501 Apprentice Hydraulics	1
463-503 Injection Mold Setup Related IV	2
Total semester credits	4

+ Proficiency exam available
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.

Injection Mold Setup (Plastic) Required Courses

- 414-500 Electricity-Apprentices** 1
Explore the principles and applications of direct current and Ohm's Law, and examine the various types of circuits and meters during this apprenticeship course. Discuss additional topics such as electrical power, magnetism, relays, energy, and transducers.
- 419-501 Apprentice Hydraulics** 1
Gain the knowledge of the uses and applications of hydraulics required in the apprentice trades.
- 419-502 Pneumatics for Apprentices** 1
Gain the knowledge of the uses and applications of pneumatics required in the apprentice trades.
- 462-506 Schematics-Inj Mold Setup** 1
Explore the basics of schematic print reading for the injection mold set up apprentice, and study topics including hydraulics, pneumatics, and electrical schematics.
- 463-500 Injection Mold Setup Related I** 2
Gain a background in reading electrical, hydraulic, and pneumatic schematics through this course, which is designed for the injection mold setup apprentice. Study topics such as injection molding, thermosets and thermoplastics, mold set up and start up, and the structure and properties of plastic.
- 463-501 Injection Mold Related II** 2
Explore robot applications for the injection mold setup apprentice, and develop a basic understanding of blueprint reading and plastic mold design.

- 463-502 Injection Mold Related III** 2
Take part in basic machine shop, inspection, and inspection set-up training for the injection mold set up apprentice.
- 463-503 Injection Mold Related IV** 2
Study various molding processes, including the injection molding process, during this course for the injection mold set up apprentice.
- 623-500 Statis Proc Control - Apprent** 1
Understand and use statistical process control in a production environment. Team problem solving, statistical problem solving, basic statistics, X-R charting, process capability, and design of experiment will be addressed.
- 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
- 809-500 Vital Problem Solving** 1
Develop critical-thinking and problem-solving skills, and explore the application of these skills to real-life scenarios.