

# Maintenance Mechanic/Millwright

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

## About the Apprenticeship

Maintenance Mechanic/Millwrights repair and maintain equipment used in manufacturing and other industries. Machine tools, conveyor systems, and specialized maintenance equipment are among some of the types of machinery repaired by maintenance mechanic/millwrights. In addition, students will also learn about hydraulics, welding, pneumatics, electricity, and industrial math.

## 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](http://www.wisconsinapprenticeship.org)

## Required Courses

## Credits

### First Semester

423-500	Maintenance/Millwright Related I	3
804-504	Industrial Math I	1+
<b>Total semester credits</b>		<b>4</b>

### Second Semester

423-505	Maintenance/Millwright Related II	3
804-505	Industrial Math II	1+
<b>Total semester credits</b>		<b>4</b>

### Third Semester

419-501	Apprentice Hydraulics	1
423-515	Maintenance/Millwright Related III	2
442-505	Welding for Apprentices	1
<b>Total semester credits</b>		<b>4</b>

### Fourth Semester

414-500	Electricity-Apprentices	1
419-502	Pneumatics for Apprentices	1
423-520	Maintenance/Millwright Related IV	2
<b>Total semester credits</b>		<b>4</b>

+ 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](http://www.wctc.edu).

## Maintenance Mechanic/Millwright 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.

### 423-500 Maint Mill I 3

Develop skills needed to progress from an apprentice to a competent journeyman by studying safety, blueprint reading, and trade theory.

### 423-505 Maint Mill II 3

Develop skills as an apprentice in areas such as metalurgy, machine operation and machine repair.

**423-515 Maint Mill III 2**  
Further develop skills and knowledge as an apprentice in failure diagnosis and maintenance procedures.

**423-520 Maint Mill IV 2**  
Develop skills as an apprentice needed in vibration analysis and other preventive maintenance techniques.

**442-505 Welding for Apprentices 1**  
Become familiar with various welding applications used in industry.

**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