

# Plumbing Apprenticeship

## Plumbing Apprenticeship

2009-2010 Curriculum

### Work Description

Plumbers may work with water supply systems, waste water treatment, drainage systems and gas piping in both residential and commercial applications. Additional trade practices can include installation of bath and kitchen fixtures, service and repair work, code upgrades and remodeling.

Plumbers work in government agencies, public utilities, residences and industries. Many plumbers enjoy the independence of working alone, with full responsibility for designing and repairing plumbing systems.

Plumbers use pipe cutters, wrenches, reamers, power drills, power saws, hammers and other common hand tools. Power machines are often used to cut and thread pipes.

### Application Requirements

Plumber apprentice applicants must have a high school diploma or its equivalent and must pass an aptitude test. High school classes in chemistry, general mathematics, mechanical drawing, physics and shop are helpful.

### Training Period

The term of the plumbing apprenticeship consists of five years of not less than 8,000 hours in which a minimum of 500 hours is spent in paid-related classroom instruction and 260 hours of unpaid-related instruction with a minimum 80 percent attendance required. Classes are offered every other week for eight semesters.

### Skills Required

The craft requires mechanical understanding and an eye for detail. Plumbers should have an ability to work well and quickly with their hands when installing systems. While the craft is less physically demanding than in years past, plumbers must still have the physical strength and endurance to handle heavy pipes, appliances, equipment and plumbing fixtures in an efficient manner.

The skills used by plumbers are mental as well as physical. Plumbers must be able to read and understand the plumbing code book, manuals and blueprints. They must have the basic math skills necessary to design properly sized plumbing systems, to compute grades and elevations, and to perform other plumbing layout and design functions.

*Apprenticeship: 50-427-5*

*Five Years (consisting of four years of schooling)*

*Campus: Fond du Lac*

### Skills Required (Cont.)

Plumbers are licensed because their work affects public health and safety. They must be able to understand the physics and chemistry necessary to enable them to protect the quality of the drinking water and public health.

Successful plumbers must continue to train, even after completion of their apprenticeship, to polish rusty skills and keep pace with new technologies.

State law requires licensed journeymen and master plumbers to take a minimum of six hours of approved continuing education each year, in order to renew their license the following year.

### Tools and Equipment

Plumbers generally need only their own measuring instruments, such as a rule, a pocket level and a plumb bob. Most companies provide all the tools needed in the trade, including pipe wrenches, blowtorches, soldering irons and welding gear.

### Program Outcomes

- Demonstrate health and safety procedures.
- Apply plumbing code.
- Interpret plumbing blueprints.
- Utilize measurement and hand tools in field applications.
- Interpret isometric drawings.
- Explain the operation of sanitary drain and vent systems.
- Explain the operation of water distribution systems.
- Explain on-site waste installation.
- Use trade math in field applications.

### Career Opportunities

- Estimator
- Master Plumber
- Plumber
- Plumbing Sales
- Retail Sales
- Service Technician

For additional information, visit  
[www.morainepark.edu](http://www.morainepark.edu)

**Beaver Dam** 700 Gould Street  
Beaver Dam, WI 53916-1994

**Fond du Lac** 235 North National Avenue  
Fond du Lac, WI 54935-2884

920-924-3207

**West Bend** 2151 North Main Street  
West Bend, WI 53090-1598

TTY 920-929-2109  
1-800-472-4554

Semester	Course Number	Course Title	Hrs.	Crs.
Semester 1	427-561	Sanitary Drain and Vent Systems	72	2
Semester 2	427-562	Vents and Venting Systems	72	2
Semester 3	427-563	Drainage System Components	72	2
Semester 4	427-564	Plumbing: Water Distribution	72	2
Semester 5	427-565	Private On-Site Wastewater Treatment Systems 1	72	2
Semester 6	427-566	Private On-Site Wastewater Treatment Systems 2	72	2
Semester 7	427-567	Plumbing: Advanced Topics	72	2
Semester 8	427-568	Plumbing Review	72	2

Schedule a Course

Academic Planner

Total

576

16

A Plumbing Exit Assessment is a graduation requirement for this program. State of Wisconsin licensing exam is required.

### Suggested Related Electives (unpaid related)

413-500	*OSHA 10 - Trades Safety	12	.50
427-513	Private Water Supply - Self-Directed	27	.75
427-342	Isometric Drawing	36	1
427-350	Plumbing Applications	36	1
427-357	Plumbing Blueprint Reading	36	1
427-369	Plumbing Service and Repair	54	2
427-559	Plumbing History, Self-Directed	27	.70
427-570	Drawing State-Approved Plumbing Plans	28	1
427-586	Transit and Level for Plumbers	21	.75
442-322	Welding for Apprentices	36	1
455-455	*Transition to Trainer, Your Role as a Journeyworker	8	.20
531-465	*Heartsaver First Aid/CPR	7	.20

Other unpaid-related courses may be taken with the approval of the Advisory Committee.

Required hours for completion are 500 hours of paid-related (day school) and 260 hours of unpaid-related (night school or elective offerings).

Apprenticeship Application and Requirements: Students may apply to more than one committee.

Associated Builders and Contractors Committee (ABC)

Apprenticeship application information is available from Associated Builders & Contractors by contacting 800-829-9926, 608-244-6056 or [info@abcwi.org](mailto:info@abcwi.org). Applications are available online at [www.abcwi.org/apprenticeship](http://www.abcwi.org/apprenticeship).

\*Required

Mechanical Contractors Association Committee (JAC)

Apprenticeship application information is available from Mechanical Contractors Association of North Central Wisconsin, Inc., by contacting 920-734-3148 or [101soms@yahoo.com](mailto:101soms@yahoo.com).

For schooling information, please contact Jon Waldhuetter, Apprenticeship Dean at [jwaldhuetter@morainepark.edu](mailto:jwaldhuetter@morainepark.edu) or 262-335-5841.

For apprenticeship information, please contact Jane Kramer, Bureau of Apprenticeship Standards Representative at [jane.kramer@dwd.wisconsin.gov](mailto:jane.kramer@dwd.wisconsin.gov) or 920-996-4550 or Barbara Robakowski, Bureau of Apprenticeship Standards Representative at [barbara.robakowski@dwd.wisconsin.gov](mailto:barbara.robakowski@dwd.wisconsin.gov) or 262-335-5849.