

Plumbing Apprenticeship

Did you know?*

- Job opportunities should be very good, especially for workers with welding experience.
- Pipelayers, plumbers, pipefitters, and steamfitters comprise one of the largest and highest paid construction occupations.
- Most states and localities require plumbers to be licensed.
- Apprenticeship programs generally provide the most comprehensive training, but many workers train in career or technical schools or community colleges.
- The Plumbing apprenticeship is a 4-year program

*Statistics retrieved from the U.S. Bureau of Labor Statistics.

What Does a Plumber Do?

Plumbers design, install, repair and maintain piping systems such as soil, waste, vent, potable water, wastewater treatment, gas systems (medical, propane, and natural) in residential, commercial, industrial buildings and at utility sites. Plumbing tasks require the ability to assemble, install, maintain and repair pipes, fittings, fixtures, appurtenances, appliances of heating, water, storm and sanitary drainage systems according to specifications and plumbing codes. Plumbers install sanitary fixtures; such as, lavatories, toilets, bathtubs, bathroom accessories, showers, kitchen sinks and appliances, drinking fountains and laundry equipment.

Tasks:

- Install interior and exterior underground sanitary, storm sewer and water and private sewage systems.
- Prepare, install, test, maintain and remove vertical and horizontal waste systems, stacks and branches, including soil, waste vent, and conductors.
- Install water supply systems, including underground and above-ground domestic potable hot and cold water systems, cross-connection control, and water treatment, multi-purpose pipes, and backflow prevention.
- Set and connect all types of plumbing and gas fixtures and appliances, including those connected with both the water supply, gas, and waste water and water treatment systems.
- Plumbing layout.
- Core drilling, stock work and truck driving.
- Review blueprints and building codes and specifications to determine work details, layout, and procedures.
- Study building plans and inspect structures to assess material and equipment needs, to establish the sequence of pipe installations, and to plan installation around obstructions such as electrical wiring.
- Keep records of assignments and produce detailed work reports.
- Locate and mark the position of pipe installations, connections, passage holes, and fixtures in structures, using measuring instruments such as rulers and levels.
- Measure, cut, thread, weld, braze, solder, and bend pipe to required angle, using hand and power tools or machines; such as: pipe cutters, pipe-threading machines, and pipe-bending machines.
- Install pipe assemblies, fittings, valves, appliances such as dishwashers, water heaters, and fixtures; such as sinks and toilets, using hand and power tools and water treatment equipment.
- Other duties as assigned.

What Are the Working Conditions?

Plumbing work can be indoors or outdoors in existing and newly constructed buildings, in all weather conditions. The work requires physical strength and stamina with prolonged standing, bending, and lifting heavy pipes and equipment and working in cramped, awkward or uncomfortable positions. Training in safety practices prevents the risk of dangers with falls from ladders, cuts from sharp tools and burns from hot pipes or soldering equipment. Must be able to work from heights of 50 ft or higher to working in trenches, below ground, and other confined areas. Must be able to tolerate a variety of environments (weather and work sites, hours, etc.), have mechanical abilities, have awareness of surroundings and responsibilities, and be able to tolerate repetitive motion reaching and handling, and the ability to climb, balance, stoop, bend, kneel and crouch on a repetitive basis. Must be able to travel and have the ability to work flexible hours and nights.

How is the Training Structured?

- 4 year training program

- 8,000 hours on-the-job training
- 144 hours of related instruction per year

What are the Application Requirements?

- Must be 18 years old
- High school diploma or equivalent
- Valid driver's license and reliable transportation

What Skills Should I Possess?

- **Customer and Personal Service**- Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- **Designs**- Ability to learn and read, blueprints/diagrams and technical manuals.
- **Building and Construction**- Basic knowledge of machines and tools, including their designs, uses, repair, and maintenance involved in construction.
- **Science**- Basic knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods. Basic understanding of physics, etc.
- **Computers**- Knowledge of computers and their use.
- **Active Listening**- Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Problem Solving**- Determining causes of operating errors and deciding what to do about it. Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- **Time Management**- Managing one's own time and the time of others and possess personal organizational skills.
- **Mathematics**- Using mathematics, including measuring, counting, basic addition, subtraction, multiplication and division, calculate ratios, percentages, and dimensions with and without the aid of a calculator.
- **Analytical Thinking**- Job requires analyzing information and using logic to address work-related issues and problems. Analyzing information and evaluating results to choose the best solution and solve problems.
- **Dependability**- Job requires being reliable, responsible, and dependable, accountable for and fulfilling obligations on time and accurately.
- **Initiative**- Job requires a willingness to take on responsibilities and challenges.
- **Performing General Physical Activities**- Performing physical activities that require considerable use of your arms and legs and moving your whole body both at heights and in confined spaces; such as: climbing, lifting, balancing, walking, stooping, and handling of materials with the ability for moderate to heavy lifting.
- **Stress Tolerance**- Job requires accepting criticism and constructive criticism.
- **Team Work**- Ability to work alone or as part of a team.

Additional Resources

The United States Bureau of Labor Statistics maintains information on all occupations. For more information on the Plumbing and Pipefitting trades in the United States, visit:

<http://www.bls.gov/ooh/construction-and-extraction/plumbers-pipefitters-and-steamfitters.htm#tab-1>

Who to Contact in Mississippi

For more information on becoming a plumber contact MCEF at 601-605-2989.