



PLUMBING TECHNICIAN COURSE OUTLINE

105 to 145 Hours

- **30 Instructional Hours**
- **75 Self-Study Hours**
- **40 Externship Hours (when offered with externship)**

Duration 3 or 6 months • Mentor Supported

No Prerequisites Required

Certificate in Plumbing Theory

This comprehensive knowledge-based Plumbing Course teaches the A-Z of the plumbing trade and is taught by a licensed plumbing instructor, rapidly preparing students for entry-level work in plumbing. Receive consistent, high-level instruction in everything related to plumbing in topics such as tools, safety, the Uniform Plumbing Code (UPC), all major systems and subsystems such as: drain, waste and vent, toilets, laves, tubs, fixtures, water heaters, commercial grease traps and so much more! Students learn the rough-in, top-out and installation of all new construction plumbing, as well as basic plumbing repair and maintenance. Students study and complete the course at a pace they control, with sufficient retention of the knowledge to pass their exams with a score of 80% or higher.

EQUIPMENT AND MATERIALS USED IN THIS COURSE

An internet-capable computer, internet connection, web browser, textbook, online examinations and information.

CURRICULUM OUTLINE

Note: This curriculum references only key instructional content and is not inclusive of the entire curriculum. For the complete curriculum, request the Course Syllabus.

Drain, Waste & Vent (DWV) Systems:

- Safety
- Principles of Water
- Sanitary Drainage Systems
- Specific Sub-Systems and Components
- Measure Fittings and Cut Pipe
- Designing a Residential Drainage System
- Plans/Drawings
- DWV Installation Tools
- DWV Pipe Installation
- DWV Bathroom Module
- Layout for Bathtub, Lave, Water Closet 2.
- Connecting Fittings
- Drilling Holes
- Rough-in Water Closet
- Water Closet DWV
- Bathroom Module DWV
- Special Systems of DWV
- Cutting Cast Iron
- Lead and Oakum
- Pouring a Joint
- Lead Pipe

Water Supply Systems:

- Residential Water
- Special Devices for Water
- Piping Systems
- Layout for Water
- Plan Review
- Hanging Pipe
- Measuring for Water
- Cutting Copper Pipe
- Soldering
- Cutting Water Pipe
- Installation of Water Pipe
- Cut Sheets
- Layout of Water
- Testing the Water Systems
- Chilled Water
- Heating Water
- Water Treatment Filtration
- Fire Sprinklers

Commercial Plumbing Service & Repair:

- Fuel Gas Systems
- Residential Job Sites
- Trim & Finish
- Tankless Water Heater
- Commercial Plumbing Systems
- Fire Sprinkler Systems
- Fuel Gas Systems
- Well Systems
- Kitchen Sink Systems
- Skills Sets

Occupation Description and Disclosure:

- Completion of this Plumbing Course prepares individuals for entry-level employment in positions involving Maintenance Plumbing, Plumbing Assistance and the plumbing work involved in General Maintenance and Repair positions such as Maintenance Mechanic, Facilities Maintenance Technician, and Building Maintenance and Repair Technician.
- General Maintenance and Repair (SOC 49-9071 US Department of Labor), is a non-licensure occupational classification as are various trade assistant jobs in plumbing, including but not limited to (49-3015, Helpers-Pipelayers, Plumbers, Pipefitters, Steamfitters [US Department of Labor]).
- This course is not intended to lead to becoming a Licensed Plumber.
- A Certificate of Completion from Institutions offering this program do not qualify an individual to work as a licensed Plumber or as a licensed Contractor.
- Only employees working on their employer's premises, or individuals working on their own residence, may perform plumbing work without a Journeyman or Contractor's License . Additionally, maintenance employees are prohibited from certain types of plumbing work without a license. Permissible tasks for maintenance workers involve repairing and replacing of existing plumbing systems, operating and maintaining plumbing systems, and working directly with licensed Plumbing Journeymen . A self-employed individual may not perform any plumbing (except on their own residence) without a Plumbing Contractor's License.
- In order to become a licensed Plumber, an individual must be at least 16 years of age, register as an apprentice plumber, be employed by a licensed Plumbing Contractor, complete work under constant supervision of a licensed Plumbing Journeyman or Master employed by the Plumbing Contractor, and be enrolled in or have completed a four-year training program at an approved school. In order to become a licensed Journeyman Plumber, an individual must have completed 8,000 hours of qualified plumbing work as a registered apprentice under the constant supervision of a licensed Journeyman Plumber, and passed the licensure exam.