Summary: Plumbers install pipes for water, gas and medical gas systems. They also install sanitary facilities in residences, commercial and industrial settings. This includes multi-housing complexes, retail, medical and research centers, and nearly any commercial structure requiring sanitary systems. Plumbers use a variety of academic and technical skills to install, repair and maintain systems. Plumbers run tests on their installations to assure the system functions properly, and meets the plumbing code. Plumbing is a licensed craft, and professionals must maintain their license and specialty credentials throughout their career.

Three Pathways:

Construction Trades: A five-year academic, 10,000 hour on-the-job training program resulting in several credentials, and the PLO 1 License, which qualifies a plumber to work in all phases of plumbing construction.

Service: A five-year academic, 10,000 hour on-the-job training program resulting in several credentials, and the PLO 1 License, which qualifies a plumber to work in all phases of plumbing construction. Service plumbers work in repair and maintenance.

Residential: A three-year, 6,000 hour on-the-job training program resulting in several credentials, and the PLO 2 License, which is limited to installation, maintenance and repair of equipment in buildings that do not exceed seven stories. A residential plumber can earn the PLO 1 license after being a journeyman for 3 years.

Apprentice Tasks:

- Build and install sterile systems for hospitals, medical and dental offices, and research centers
- Maintain mechanical devices in order to prevent cross-contamination
- Clear pipelines, jetting and drains
- Make repairs on fixtures and pipes
- Install, test, repair and maintain underground waste, above grade waste, and associated vent piping
- Prevent backflow issues by properly maintaining associated devices
- Install, test, repair and maintain underground and above grade rainwater piping
- Install, maintain and repair natural gas piping
- Layout piping and associated materials for proper installation
- Complete routine construction tasks associated with plumbing, such as drilling
- Handle and organize materials
- Clean jobsites

Working Conditions: Plumbers work outdoors in all kinds of weather, as well as indoors. They work on ladders, in trenches, or in unfinished sections of new buildings. Often this work is done in cramped, wet or dirty condition. It is frequently necessary to stand for long periods of time. Occasionally, work must be done in uncomfortable positions and relatively inaccessible places.
Knowledge, Skills and Abilities of a Successful Plumber Apprentice:

- Apply algebraic and trigonometric mathematical equations to solve real-world problems, quickly and accurately
- Communicate professionally and with courtesy
- Interpret blueprint drawings on paper and in computerized formats
- Comprehend abstract ideas and visualize completed projects
- Adapt to different environments or working conditions on a regular basis
- Stay updated on industry code and advancing technologies
- Safely use hand and power tools
- Lift, move or carry materials weighing at least 50 lbs. with proper ergonomics

Aptitude and Temperament of a Successful Plumber Apprentice:

- Arrive early and ready to work, every day
- Listen actively, and ask for assistance or clarification, when needed
- Respect peers, supervisors, and other crafts on a jobsite, in the classroom, and in the community
- Work on a team or individually, as the project requires
- Handle stressful situations that could be emergent in nature
- Show initiative: self-start projects, plan steps, and stay ahead of tasks
- Demonstrate a willingness to try tasks and take direction from others

Instruction Requirements:

- Abide by all policies outlined in the Apprenticeship Handbook, annual program orientation, and state program standards
- Respect instructors, coordinators, office staff and peers
- Communicate with coordinators, instructors and office staff to insure accurate, positive information regarding progress is always on hand
- Maintain a “B” or 3.0 grade point average in every class
- Complete and turn in monthly evaluations on time

Industry Requirements:

- Follow contractor policies and adhere to the procedures outlined in the Collective Bargaining Agreement between United Association Local 32 and the Mechanical Contractors Association of Western Washington
- Maintain Washington State Plumber Trainee card, and earn Plumber Licenses, as required for each pathway
- Earn and maintain Medical Gas Braze certifications every six months
- Arrive early and ready to work; provide proper and advance notification to supervisor if sick
- Stay on task, follow directions, and ask for assistance when needed
- Maintain a respectful work environment with peers, journeymen, and supervisors