

# PLUMBING, CERTIFICATE OF PROFICIENCY



Student must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training, and the United Association (UA).

The apprenticeship program prepares the student to earn a journey-level status in Plumbing. A five-year apprenticeship emphasizes the skill set required to be a journey-level Plumber. The Certificate of Proficiency provides academic recognition of the accomplishment of the journey-level worker. An apprentice will learn to install, repair, maintain and service piping systems, plumbing systems and equipment used for drinking (potable) water distribution, sanitary storm water systems and waste disposal. Additional opportunities for plumbers can include technical installations for Medical Gas, Hydronic in-floor heating, Solar Panels, Heat Pumps, Cross-Connection Control and many other systems necessary for the health and safety of the general public.

Student must complete apprenticeship and be eligible for journey certification to receive Certificate of Proficiency.

**Program contact:** Learn more (<http://www.tri-c.edu/programs/applied-industrial-technology/skilled-construction-trades/plumbing>)

Financial Assistance funds cannot be applied towards this program.

**This certificate will be automatically awarded when the certificate requirements are completed. If you do not want to receive the certificate, please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.**

Learn more (<http://catalog.tri-c.edu/pathways/apprenticeship-programs-construction-trades-manufacturing/applied-industrial-technology-plumbing-apprenticeship>) about how certificate credits apply to the related degree.

## Program Admission Requirements

- High School Diploma/GED

## Other Information

- Participant must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training, and the United Association (UA).

## Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Communicate verbally, non-verbally and in writing with the construction team that include members of other trades, contractors, customers, and public officials and agencies.
2. Work independently and in a team setting to accomplish work in a timely, professional, and cost effective manner.
3. Act according to the United Association of Plumbers and Pipe Fitters Code of Excellence and continually upgrade knowledge and skills.
4. Recognize, analyze and apply critical thinking to resolve issues as they arise while minimizing waste and improving productivity.
5. Use appropriate personal protective equipment and fall protection to ensure a safe and environmentally sensitive work environment in accordance with OSHA and other federal, state, local and contractor's standards, policies, and regulations.
6. Apply basic and advanced math concepts and operations and blueprint reading to accurately determine layout in order to fabricate and complete various pipe trade tasks that minimizes waste.
7. Apply knowledge of math, pipe hydraulic theory, blueprints, and tools to install, repair and test basic piping systems that meet industry codes and standards.
8. Apply knowledge of advance math to install, repair and test Potable Water, Storm/Sanitary Drainage, Fuel Gas and Medical Gases Systems according to national, state, local and other applicable industry codes and standards.
9. Obtain all required certifications in the plumbing industry.

## Suggested Semester Sequence

Course	Title	Credit Hours
<b>First Semester</b>		
ATPL-1000	Care and Use of Tools <sup>1</sup>	2
ATPL-1010	Soldering and Brazing <sup>1</sup>	2
ATPL-1030	State of Ohio Plumbing Code I	2
ATPL-xxxx	Plumbing elective	2
ATPL-1070	Pipe Fittings, Valves, and Supports	2
Credit Hours		10
<b>Second Semester</b>		
ATPL-1220	Gas Systems	2
ATPL-1230	Water Supply	2
ATPL-2320	State of Ohio Plumbing Code III	2
ATPL-2350	Electricity for Plumbers	2
ATPL-xxxx	Plumbing elective	2
ATPT-xxxx	ATPT elective course	2
ATPL-xxxx	Plumbing elective	2
Credit Hours		14
<b>Summer Completion</b>		
ATPL-2410	City & State Backflow Cert	2
ATPL-xxxx	Plumbing elective	2
ATPL-xxxx	Plumbing elective	2
Credit Hours		6
Total Credit Hours		30

<sup>1</sup> Apprentice may be awarded credit from JATC for life experience.