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## Plumbing Apprenticeship Program

### Course Curriculum

**Semester 0** (Tuition: \$1,490)

Course #	Course Title	Credits
10-620-131	Electrical Wiring - Basic	1
Credits: 1    Lecture Hours: 9    Lab Hours: 18 Students apply related code applications, OSHA safety standards, and use testing instruments through class participation and simulated field activities. Night class for Plumbing Apprenticeship Program.		
31-442-335	Welding for Plumbers	1
Credits: 1    Lecture Hours: 18    Lab Hours: 18 Students perform oxy-fuel brazing in all positions on copper and stainless steel tubing using various filler metals. Students perform Shielded Metal Arc Welding in all positions on steel and stainless steel pipe.		
50-427-512	Level & Transit Plumbers	0.75
Credits: 0.75    Lecture Hours: 24 Students practice using the builder's level, transit, and laser to layout building lines, grades, set pipe runs, and measure elevations and distances. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.		
50-427-558	Isometric Interpretation & Drawing	0.5
Credits: 0.5    Lecture Hours: 18 This course will instruct the apprentice in the different areas of paper and pencil drawing. By using drafting tools the apprentice will draw plan view, isometric, cross section, elevation, and detail drawings. Using industry standards, the apprentice will label the drawings they have completed. The drawings will also be sized and vented per Wisconsin Administrative Code, Chapters 81-87.		
50-427-760	Plumbing Applications	1
Credits: 1    Lecture Hours: 18    Lab Hours: 18 Examines a variety of real-life applications used in the plumbing trades and typically covered in paid related instruction. The units address the hows and whys behind joints and connections, rigging and signaling, hydraulics and pneumatics, plumbing and the environment, gas pipe applications, and applied electricity for plumbers. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.		
50-427-761	Plumbing Service and Repair	1.25
Credits: 1.25    Lecture Hours: 23    Lab Hours: 23 This course is designed to provide apprentices with the academic and hands-on experience needed to perform plumbing service and repair tasks. Emphasis is placed on the safe and responsible use of tools and equipment. Topics include clogged drains, garbage disposers, water treatment equipment, water closets, urinals, flush		

valves, cold weather plumbing problems, water systems, pumps and faucets. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-762 Plumbing Blueprint Reading 1.25

Credits: 1.25 Lecture Hours: 22 Lab Hours: 23

Provides instructional material for plumbing apprentices to develop the ability to interpret trade blueprints and to plan the installation of the required plumbing. Skills covered include identifying blueprint features, interpreting specifications, reading a blueprint for the purpose of layout work, listing material from print, and coordinating installation of piping with other trades. Blueprint reading practice will be offered while working with an actual print. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-763 Plumbing PRI Independent Study 1

Credits: 1 Lecture Hours: 36

Provides additional hours for plumbing apprentices who require time to complete their 572 hours of paid related requirement. Up to 72 hours can be scheduled as need in an independent study format. Course hours can be used to make up for time lost due to injury or illness, or to catch-up apprentices who start mid-term for example. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-770 Plumbing PRI Independent Study - Makeup Hours 0.5

Credits: 0.5 Lecture Hours: 18

Provides additional hours for plumbing apprentices who require time to complete their 572 hours of paid related requirement. Up to 72 hours can be scheduled as need in an independent study format. Course hours can be used to make up for time lost due to injury or illness, or to catch-up apprentices who start mid-term for example. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

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**Semester 01** (Tuition: \$330)

Course #	Course Title	Credits
50-427-751	Sanitary Drains 1	2

Credits: 2 Lecture Hours: 72

Plumbing related instruction of sanitary drain systems. Course includes a review of codes and trade practices related to sanitary drains, drainage systems, components and applications. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

2

**Semester 02** (Tuition: \$330)

Course #	Course Title	Credits
50-427-752	Vents and Venting Systems	2

Credits: 2 Lecture Hours: 72

This course is designed to provide the apprentice with the skills to identify and design sanitary vent piping in a plumbing system in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

2

**Semester 03** (Tuition: \$330)

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
50-427-753	Water Distribution 1	2

Credits: 2 Lecture Hours: 72

This course provides the apprentice with the skills to identify, design, install and service various applications for water supply systems that are listed in plumbing codes. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. Course topics will include commercial to single family and private well pump systems. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

2

**Semester 04** (Tuition: \$330)

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
50-427-754	Water Distribution 2	2

Credits: 2 Lecture Hours: 72

This course provides the apprentice with the skills to identify, design, install and service cross connection controls, water treatment equipment and multi-purpose piping systems in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

2

**Semester 05** (Tuition: \$330)

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
50-427-757	Green Plumbing Applications	2

Credits: 2 Lecture Hours: 72

This course provides plumbing apprentices with an introduction to green applications. Apprentices will be instructed on how to identify, install and maintain a variety of green products and systems. They will apply the Wisconsin Plumbing Code to various installations. This introduction will give an apprentice the basic knowledge to study for a variety of green certifications. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

2

**Semester 06** (Tuition: \$330)

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
50-427-755	Sanitary Drains 2	2

Credits: 2 Lecture Hours: 72

This course provides the apprentice with the skills to identify, design, install and service various applications for storm water, clear water, and drainage systems. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

2

**Semester 07** (Tuition: \$330)

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
50-427-756	Private On-site Wastewater Treatment Systems (POWTS)	2

Credits: 2    Lecture Hours: 72

This course provides the apprentice with the skills to identify, design, install and service various applications for private onsite wastewater treatment systems that are listed in plumbing codes or individual component manuals. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. Other topics will include pretreatment, soil evaluation, site planning and new technologies. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

**2**

**Semester 08** (Tuition: \$330)

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
50-427-758	Plumbing Advanced Topics/TSA	2

Credits: 2    Lecture Hours: 72

This course provides the apprentice with the opportunity to select and complete an applied plumbing project in collaboration with the instructor. Projects will apply the skills required to identify, design, install and service various plumbing applications that are listed in plumbing codes. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course builds upon the theory, work experience, and the application of plumbing code principles addressed in previous coursework to support completing an applied hands-on project. Prerequisites: Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

**2**

**Total Credits: 24**

**Estimated Total Tuition\*: \$4,130**