



PLUMBING 101

COURSE SYLLABUS AND LESSON PLAN

30 Instruction Hours ♦ 75 Study Hours ♦ Self-paced—completed within 1 to 12 Months

No Prerequisites ♦ Certificate in Plumbing Theory ♦ Distance Education only; Online only

COURSE DESCRIPTION: This comprehensive Plumbing Course teaches the A to Z of the plumbing trade theory according to the Uniform Plumbing Code (UPC) and is taught by a licensed plumbing instructor. Students receive consistent, high-level instruction in everything related to plumbing from the rough-in, top-out and installation of all new construction plumbing, to basic repair and maintenance. They will also learn how to install everything from tubs, sinks, lavatories and fixtures to hot water heaters and commercial grease traps.

COURSE OBJECTIVE: This Plumbing Course prepares an individual to enter 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.

- ***This course is NOT intended to lead to becoming a Licensed Plumber.***
- *General Maintenance and Repair (SOC 49-9042 Idaho Department of Labor, 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]). For more occupational information on these and related SOC's go to: www.onetonline.org.*
- *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. Certificates of this institute do not qualify an individual to work as a licensed Plumber or as a licensed Contractor. Students are prohibited from doing any plumbing work outside of their own residence unless the student is concurrently employed in maintenance, engaging in repair and maintenance of existing plumbing on the employer's premises. When installing new plumbing systems, the student must be working under the constant supervision of a licensed Journeyman Plumber or Plumbing Contractor.*



Plumbing Course Syllabus (continued)

- *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 or Master Plumber, and passed the licensure exam.*
- *For more information, go to <http://dbs.idaho.gov>.*

EQUIPMENT AND MATERIALS USED IN THIS COURSE: An internet-capable computer, internet connection, web browser.

VIDEO INSTRUCTION: *Professional Plumbing Course.* Director Gene Kelly, Producer Keith Hezmalhalch, Instructor Gene Burch. Accelerated Training Institute (ATI), 2011.

INSTRUCTIONAL MODE: Distance education not in real time. All instruction is provided via pre-recorded video lessons.

FREQUENCY OF LESSONS: Lessons occur at a time and location determined by the student.

METHOD OF INSTRUCTION: This course is taught in pre-recorded video instruction; however, the students can access Student Support Specialists whenever they have technical questions or need assistance with completing the coursework. Students submit their questions by email to faculty@attitradeschools.com, after which they will receive an email reply and/or a telephone call from a Student Support Specialist.

TESTING AND CERTIFICATE REQUIREMENTS: When you complete the video instruction in the Plumbing Course, you will take an online examination to test your knowledge. Also, for each of the assigned chapters, you may optionally complete an end-of-chapter quiz. Quizzes are optional study tools to support passing your final exam. Exams are online, not timed, and are open book, open video. Once started, an online exam may be suspended but must be completed within 60 days. When you pass your final exam with a score of 80% or higher, you will receive a Plumbing Theory Certificate.

GRADING SYSTEM: Students are graded on a pass/fail basis.

Passing Grade: A passing grade is given to a student who achieves a score of 80% or higher on all examinations in the Plumbing Course.



Plumbing Course Syllabus (continued)

GRADING SYSTEM (continued)

Failing Grade: A failing grade is given to a student who has failed to achieve a score of 80% or higher on all examinations in the Plumbing Course.

Plumbing Course Lesson Plan

Watch all video instruction for the following segments:	✓ In Progress	✓ Completed
Chapter 1: Introduction Introduction		
Chapter 2: History History		
Chapter 3: Safety Safety Part 1 Safety Part 2 History and Safety Parts 1 and 2		
Chapter 4: Drain Waste and Vent Systems - Part 1 Principles of Water Sanitary Drainage Systems – Part 1 Sanitary Drainage Systems – Part 2		
Chapter 5: Drain Waste and Vent Systems - Part 2 Specific Sub-systems and Components – Part 1 Specific Sub-systems and Components – Part 2 Measure Fittings and Cut Pipe 45 Degree Fittings Residential Drainage System – Part 1 Incomplete or Not Attempted Residential Drainage System – Part 2 Residential Drainage System – Part 3		
Chapter 6: Drain Waste and Vent Systems - Part 3 Sizing on Plans Isometric Drawings DMV Installation Preparation Install Hangers DMV Installation Tools DMV Pipe Installation – Part 1 DMV Pipe Installation – Part 2		



Plumbing Course Lesson Plan (Continued)

Watch all video instruction for the following segments:	✓ In Progress	✓ Completed
Chapter 6: Drain Waste and Vent Systems – Part 3 (Continued) Measure and Cut Pipe		
Chapter 7: Drain Waste and Vent Systems – Part 4 DMV Installation – Part 1 DMV Installation – Part 2 DMV Bathroom Module – Part 1 DMV Bathroom Module – Part 2 DMV Bathroom Module – Part 3 DMV Bathroom Module – Part 4		
Chapter 8: Drain Waste and Vent Systems – Part 5 DMV Bathroom Module – Part 5 DMV Bathroom Module – Part 5 DMV Special Systems – Part 1 DMV Special Systems – Part 2 DMV Special Systems – Part 3 DMV Special Systems – Part 4 DMV Special Systems – Part 5		
Chapter 9: Drain Waste and Vent Systems – Part 6 DMV Special Systems – Part 6 DMV Special Systems – Part 7		
Chapter 10: Water Supply Systems – Part 1 Water Sources Special Devices for Water – Part 1 Special Devices for Water – Part 2 Special Devices for Water – Part 3 Hot Water Systems Piping Systems – Part 1 Piping Systems – Part 2 Piping Systems – Part 3		
Chapter 11: Water Supply Systems – Part 2 Residential Water Layout – Part 1 Residential Water Layout – Part 2 Plan Review Hanging Pipe Measuring for Water Cutting Copper Pipe		



Soldering		
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Plumbing Course Lesson Plan (Continued)

Watch all video instruction for the following segments:	✓ In Progress	✓ Completed
Chapter 11: Water Supply Systems – Part 2 (Continued) Cutting Water Pipe Installation of Water Pipe		
Chapter 12: Water Supply Systems – Part 3 Residential Water Bathroom – Part 1 Residential Water Bathroom – Part 2 Residential Water Bathroom – Part 3 Residential Water Bathroom – Part 4 Residential Water Bathroom – Part 5 Residential Water Bathroom – Part 6 Residential Water Bathroom – Part 7		
Chapter 13: Water Supply Systems – Part 4 Special Systems for Water Heater Water – Part 1 Heater Water – Part 2 Heater Water – Part 3 Heater Water – Part 4 Heater Water – Part 5 Heater Water – Part 6 Fire Sprinklers		
Chapter 14: Fuel Gas and Misc Plumbing Systems – Part 1 Fuel Gas Systems – Part 1 Fuel Gas Systems – Part 2 Plumbing Review – Fuel Gas Systems Parts 1 and 2 Fuel Gas Systems – Part 3 Fuel Gas Systems – Part 4		
Chapter 15: Fuel Gas and and Misc Plumbing Systems - Part 2 Residential Job Site – Top-out Plumbing Course – Residential Job Site – Rough In Residential Job Site – Slab Floor Trim and Finish Setting the Tub Trim Waste and Overflow Pop-up Assembly		



Tub Trap Lavatory Installation		
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Plumbing Course Lesson Plan (Continued)

Watch all video instruction for the following segments:	✓ In Progress	✓ Completed
Chapter 15: (Continued) Lav Pop-up Assembly Lav Installation Continued Connecting the Lavatory Water Closet Installation		
Chapter 16: Fuel Gas and Misc Plumbing Systems – Part 3 Trim and Finish Toilet Water Supply for the Toilet Testing the Fixtures Testing the Lavatory Testing the Toilet Trim Tankless Water Heater Hook-up Gas Lines Gas Test for the Water Heater Water Test for the Water Heater		
Chapter 17: Fuel Gas and Misc Plumbing Systems – Part 4 Commercial Plumbing Systems – Part 1 Commercial Plumbing Systems – Part 2 Well Systems – Part 1 Well Systems – Part 2 Well Systems – Part 3 Well Systems – Part 4 Shower Replacement		
Chapter 18: Fuel Gas and Misc Plumbing Systems – Part 5 Kitchen Sink Systems – Part 1 Kitchen Sink Systems – Part 2 Kitchen Sink Systems – Part 3 Skill Sets		
Chapter 18: Final Thoughts Final Thoughts		