

Course Description

Backflow Prevention:	Instruction on backflow prevention, cross connections, and device testing. Certification as a Backflow device tester upon successful completion of ASSE exam.
Basic Electricity:	Safety and the basic fundamentals of electricity needed to understand the function and operation of the electric and electronic controls used in connection with mechanical systems.
Builders Level / Transit:	Knowledge and fundamentals needed in the use of the Builders Level and Transit.
CFC Recovery:	Recovery of refrigerant in the course of repair and installation of refrigeration and cooling systems. Certification upon successful passage of exam.
Code Interpretation:	Preparation course for the Springfield and Joplin Plumbing exam.
Drainage:	Sewage disposal, sewers and drains, building drainage systems, the plumbing trap, and venting drainage systems.
Drawing Interpretation:	Technical and Isometric drawings.
Gas Code:	Preparation course for the Springfield exam.
Gas Installations:	Natural gas installations, two pound gas systems, gas appliances and controls, sizing and venting gas systems.
HVAC Technician:	Trouble shooting residential, commercial, and industrial HVAC equipment.
Introduction to Refrigeration:	Refrigerant basics.
Introduction to Welding:	Welding basics.
Job Management:	Contractor relations, material expediting, employee relations, work scheduling, and communication.
Job Safety:	Job safety, health hazards, and an overview of the OSHA laws.

LP Gas Certification:	Missouri State LP Gas regulations. Certification upon successful completion of State of Missouri Exam.
Mathematics:	Mathematics as it applies to the pipe trades, math review, formulas, and pipe measurements.
Mechanical Code:	Preparation course for the Springfield exam.
Med Gas Systems:	Medical Gas systems code, installation procedures, and equipment. Medical Gas Certification upon successful passage of NITC certification exam.
OSHA/MSDS/ Heritage/Red Cross:	OSHA 30-hour Construction certification, Material Safety Data Sheets certification, The Plumbers & Pipefitters Local Union 178 heritage, and First Aid and CPR certification.
Oxy Cutting / Welding:	Fundamentals of oxygen-acetylene cutting and welding.
Pipe Fittings:	Familiarizes the Apprentice with piping materials, joining methods, and how to support them.
Refrigeration:	Covers the basic refrigeration cycle through centrifugal and absorption systems, the related equipment, controls, startup, testing and repair of various types of refrigeration equipment.
Rigging / Signaling:	Fundamentals of rigging. Equipment and materials for hoisting and signaling practices.
Science:	Science as it applies to the pipe trades.
Soldering / Brazing:	Practices and procedures the soldering and brazing of pipe.
Use & Care of Tools:	Covers the correct and safe use of tools and the proper care of tools.
Water Supply:	Water treatment, water mains and services, building water supply systems, cross connections, hot water supply, valves, and pumps.
Welding:	Shielded Metal Arc Welding (Stick), Gas Tungsten Arc Welding (TIG), and Gas Metal Arc Welding (MIG).