



DEGREE SHEET / 2023-2024 CATALOG

Student name:

Eagle ID:

Eagle Email:

Phone:

Certificate of Technical Trades (Pipefitting Concentration)

The Certificate in Technical Trades (Pipefitting Concentration) program will provide you with opportunities to develop marketable skills installing, repairing, and maintaining common residential and commercial pipes for plumbing systems. The core principles and concepts of pipefitting for plumbing systems are covered in each course. Students completing this program may continue to an Associate Degree in Technical Trades (Plumbing).

GENERAL EDUCATION REQUIREMENTS (3 Credits)	SEMESTER	GRADE
AREA I: COMMUNICATIONS (3 Credits)		
ENGL 1110 Composition I (3) <i>Pre-requisites: ENG 109N or adequate score on the Course Placement Evaluation</i>		
PROGRAM REQUIREMENTS (32 Credits)		
MATH 1170 Applied Trades Math (3) <i>Pre-Requisite: None</i>		
PLBT 1000 OSHA 10 for the Construction Industry (1) <i>Pre-requisite: None</i>	*	
PLBT 1001 Use and Care of Tools (2) <i>Pre-requisite: None</i>	*	
PLBT 1002 Soldering and Brazing (2) <i>Pre-requisite: None</i>	*	
PLBT 1200 Rigging and Signaling (2.5) <i>Pre-requisite: None</i>	*	
PLBT 1201 Plan Reading/Drawing (1) <i>Pre-requisite: None</i>	*	
PLBT 1202 Pipes, Valves, Fitting (2) <i>Pre-requisite: None</i>	*	
PLBT 1203 Plastic Piping Installer (2) <i>Pre-requisite: None</i>		
PLBT 1204 Plumbing Fixtures and Appliances (1.5) <i>Pre-requisite: None</i>	*	
PLBT 1205 Water Supply (2) <i>Pre-requisite: None</i>	*	

PLBT 1302 Metallurgy (2.5) <i>Pre-requisite: None</i>		
PLBT 1303 Layout and Design (2.0) <i>Pre-requisite: None</i>		
PLBT 1304 Cutting and Beveling (2.0) <i>Pre-requisite: PLBT 1303 Layout and Design</i>		
PLBT 1305 Shielded Metal Arc Welding (SMAW) (2.0) <i>Pre-requisite: PLBT 1302 Metallurgy</i>		
PLBT 2200 Mechanical Code (2.5) <i>Pre-requisite: None</i>		
PLBT 2202 Pipefitter Installer Code (2.0) <i>Pre-requisite: PLBT 2200 Mechanical Code</i>		
TOTAL CREDITS 35		
ADVISOR APPROVAL	DATE	

Mapping

PLBT 1000 OSHA 10 for the Construction Industry will include concepts of safety in the construction environment

PLBT 1001 Use and Care of Tools will include proper plumbing tool use, tool care and maintenance, demonstrating the right tool for the job at hand, and safe use of tools.

PLBT 1002 Soldering and Brazing will include safe and proper use of Oxy- acetylene torch and Mapp torch. It also will include preparing pipe and fittings for soldering, correct soldering techniques, and testing of soldered joints.

Brazing copper pipe and fittings with an Oxy- acetylene torch will be covered.

PLBT 1200 Rigging and Signaling will include concepts in Rigging and Signaling and associated Science Topics

PLBT1201 Plan Reading/ Drawing will include measurement and layout tools, foundation and floor plans, elevation drawings and sectional drawings. Isometric drawings, plan dimensions, using an architectural scale, and symbols for plumbing fittings, pipe and fixtures.

PLBT 1202 Pipes, Valves, Fittings will include various pipe materials and wall thicknesses as they apply to specific field applications, as well as the numerous valves and fitting used to joint these materials.

PLBT 1203 Plastic Piping Installer will include the many types of plastic piping, uses and limitations as well as the numerous glues and primers used to join them. Plastic piping advantages and disadvantages will be covered.

PLBT 1204 Plumbing Fixtures and Appliances will include the theory and practices of fixture installation and the use of various types of fixtures. Fixtures in both residential and commercial applications will be explored.

PLBT 1205 Water Supply will include introduction to water supply systems; pipe materials; water supply sources and treatment; distribution systems; building supply systems; water heating; and water conservation.

PLBT 1302 Metallurgy will include a study of the effect of welding on metallurgical structure and properties of weld joints.

PLBT 1303 Layout and Design will include principles and practices of metal fabrication including layout, design, and support techniques.

PLBT 1304 Cutting and Beveling will include protocols and procedures for safety of cutting with various methods, including oxy fuel gas cutting, plasma cutting, chop saws, and portable band saws. The course will also address jobsite safety and hazardous substances.

PLBT 1305 Shielded Metal Arc Welding will include setup, pre-weld fit up, filler metal alloys, and welding in various positions.

PLBT 2200 Mechanical Code will include insight into the 2015 Uniform Mechanical Code and the 2015 New Mexico Mechanical Code. Regulations and guidelines for proper installation will be explored in preparation for the New Mexico State Gasfitters License for Journeyman.

PLBT 2202 Pipefitter Installer Code will include administrative rules, definitions, general regulations, and the rules of installing piping for combustion air, vents, boilers/steam vessels, hydronics and process piping.

SUGGESTED SEQUENCE OF COURSES

FIRST SEMESTER (11 Credits)

PLBT 1000 OSHA 10 for the Construction Industry (1)

PLBT 1001 Use and Care of Tools (2)

PLBT 1002 Soldering and Brazing (2)

MATH 1170 Applied Trades Math (3)

ENGL 1110 Composition I (3)

SECOND SEMESTER (11 Credits)

PLBT 1200 Rigging and Signaling (2.5)

PLBT 1201 Plan Reading/Drawing (1)

PLBT 1202 Pipes, Valves, Fitting (2)

PLBT 1203 Plastic Piping Installer (2)

PLBT 1204 Plumbing Fixtures and Appliances (1.5)

PLBT 1205 Water Supply (2)

THIRD SEMESTER (13 Credits)

PLBT 1302 Metallurgy (2.5)
PLBT 1303 Layout and Design (2.0)
PLBT 1304 Cutting and Beveling (2.0)
PLBT 1305 Shielded Metal Arc Welding (SMAW) (2.0)
PLBT 2200 Mechanical Code (2.5)
PLBT 2202 Pipefitter Installer Code (2.0)