**Course Descriptions - Summer 2025** Basic Commercial Blueprint Reading Prerequisite: None required.

This course is designed for office, field and professional support staff. Topics include: Evolution of the Construction Project (The Development of the Drawings & Specifications); Background Principles (Cracking the Code); Drawing Types Used in All Categories Drawings; Reading Drawings for Information; Overview of Architectural MEP Drawings and Specifications.

# **Basic Electrical Installation**

Prerequisite: None Required In this course you will learn basic electrical safety and safe work practices. Material identification and handling, introduction to basic EMT Conduit Bending, Wall Rough using EMT and MC Cables, best practices, identifying conductors with branch circuits and systems, good work ethics, and skill objectives.

Basic to Advanced Welding Skills	WLDG 1000		
	12 Sessions	48 Hours	
Prerequisite: None required			

This course will consist of all types of welding from basic cutting to advanced welding. The student is allowed to choose what type of welding process he or she wants to learn. The course is designed to be 99% hands on for the beginning hobbyist to the advanced welder.

<u>Conduit Bending - Beginner</u>	ELPT 1090	
	2 Sessions	8 Hours
Prerequisite: None Required In this course you will identify parts of a hand bender and identify markings as use. stub 90 degree, offset and kick bends.	You will be able to de	monstrate a
Conduit Bending - Intermediate/Advanced	ELPT 1091	

Prerequisite: None Required

In this course you will learn how to bend a Back-to-Bend 90 degree; a 3-Point Saddle, a 4-Point Saddle, how to correct twisted back-to-back 90, introduce Symmetrical Bends, and troubleshoot and make corrections to bends.

8 Hours



30 Hours

24 Hours

DFTG 1023 10 Sessions

6 Sessions

2 Sessions

Prerequisite: None Required

Mechanical Installations

# Electrical Journeyman Prep

### Prerequisite (all are required): (1) At least three years experience in Electrical Trade. (2) Basic math skills with ability to solve simple algebraic equations.

This class will consist of: an intensive NEC review of Services and Service Equipment; Wiring Methods and Installation; Cabinets; Panelboards; Switchboards; Boxes and Conduit Bodies; Conductors; Motors and Generators; Utilization Equipment and Devices; Special Occupancies and Uses; Ambient Temperature and Other Conductor Derating Factors; Low Voltage Systems NEC requirements; and Hazardous locations.

Electrical Master Prep 12 Sessions 52 Hours Prerequisite (all are required): (1) At least three years experience in Electrical Trade and preferably some classroom

hours. (2) Basic math skills with ability to solve simple algebraic equations. This class will consist of: an intensive NEC review of Services and Service Equipment; Wiring Methods and Installation; Conductors; Special Occupancies and Uses; Ambient Temperature Derating; Electrical Calculations of Single-Family, Multi-Family and Two-Family Dwellings; and Electrical Calculations of Commercial Structures (i.e. Schools, Offices, Stores, Banks, Marinas, etc.).

EXCEL Beginner 4 Sessions 12 Hours Prerequisite: None required. An introduction to using Microsoft Excel. Topics include: Data entry/editing, Creating formulas and functions, Formatting spreadsheets, Creating charts, Proofreading sheets HVAC Basic Maintenance/Troubleshooting Accessories HART 1094 10 Sessions 40 Hours

In this course you will learn basic safety, LOTO, PPE environmental extremes, tools rigging, electrical & gas furnaces, reading meters, motors, AC/DC circuits wiring diagrams, basic troubleshooting in cooling and heating, piping, type of copper and pasting, soldering and brazing, basic maintenance, amps, voltage, cleanliness, and freon levels.

32 Hours 8 Sessions Prerequisite: None Required In this course you will learn mega press and pro-press systems, soldering and brazing, flanges and groves as well as threading, air-pipe and specialty connectors.

PFPB 1011 PHCC Plumbing I-C 40 Hours 4 Sessions Prerequisite: PHCC Plumbing I-B

The course topics are: Water Closets, Fixtures, Faucets and Fixture Settings and Valves.

**ELPT 1040** 

48 Hours

**ITSW 1058** 

WLDG 1041

ELPT 2001

11 Sessions

PHCC Plumbing II-C	WLDG 1041		
	4 Sessions	40 Hours	
Prerequisite: PHCC Plumbing II-B The course topics are: Drains and Stacks, Applied Plumbing Mathematics, Applied Geom Water and Air.	etric Concepts and	Properties of	
PHCC Plumbing III-C	PFPB 1051		
	4 Sessions	40 Hours	
Prerequisite: PHCC Plumbing III-B The course topics are: Combustion Air and Venting, Liquified Petroleum Gas, Level Transit Elevation & Grade, Builders Level Transit Trench Safety, Offsets and Ratios, Capacities and Volume, and Storm Drains.			
PHCC Plumbing III-D	IEIR 1020		
	4 Sessions	40 Hours	
Prerequisite: PHCC Plumbing III-C The course topics are: Cross Connections, Ejector Systems, Impact of Temperature and Relative Humidity on Plumbing Systems, Water Treatment, and Heat Sources for Water Heaters and Ancillary Piping.			
PHCC Plumbing IV-B	PFPB 1038		
	4 Sessions	40 Hours	
Prerequisite: PHCC Plumbing IV-A The course topics are: Hydraulic Heating and Controls, Forced Air heating and alternative Heating Systems, Pumps, Blueprint Isometric and Material Takeoff, Plumbing Code Administration & Licensing, Plumbing fixtures and minimum fixture requirements Conservation Methods, Plumbing Codes Water Heaters, and Water Supply and Distribution.			
PHCC Plumbing IV-C	PFPB 2057		
	4 Sessions	40 Hours	
Prerequisite: PHCC Plumbing IV-B The course topics are: History of Backflow, Hydraulics, Elements of a Cross Connection Control Program, Facilities, Equip & Sys and Samples and Forms.			
Pipefitting Safety Hangars and Support			
	7 Sessions	28 Hours	
Prerequisite: None Required			
In this course you will learn construction drawings and layouts, identify, build and install hangers and supports. Basic power tool safety, ladder safety including saws, drills, hepa vacs, usage and safety.			

#### 6 Sessions 24 Hours Prerequisite: None Required. This course will describe the value of effective supervision of workers and improve the construction supervisor's ability to lead and motivate others. Topics include: The Dollar and Sense of People in Construction (The Role of the Construction Supervisor); Helping People Perform Better; Motivating and Leading Others; Positive Feedback; Training and Orienting Crew Members; Team Building; and Leadership Skills in Action. BMGT 1022 STP 2 - Communication 6 Sessions 24 Hours Prerequisite: None Required The course presents a body of knowledge and skills that today's construction supervisors need in order to be effective communicators on their job site. Topics include: Effective Communication; Learning to Listen; Carrying on Conversations; Persuasion; Negotiation and Confrontation; Communicating With Your Crew; Putting It in Writing; Meetings That Work; Electronic Communication; and Improving Communication. CNBT 1072 STP 3 - Planning & Scheduling 5 Sessions 20 Hours Prerequisite: None Required. This course will help construction supervisors understand ways in which planning and scheduling saves time and money, while increasing quality in the construction process. Topics include: Preparing The Project Plan; Communicating The Plan; The Critical Path; Computer Use in Scheduling; Using The Schedule on The Jobsite; Updating The Construction Schedule; The Schedule As Documentation; and Using Planning And Scheduling. **CNBT 1073** STP 4 - Contract Documents 5 Sessions 20 Hours

In this course you will learn about service plumbing calls, today's technology with water heaters and code requirements, basic electricity related to plumbing, critical thinking and real-world scenarios, scheduling (PROCORE), tools including

draining cleaning machines, hydro-jets, disposal pumps, plumbing theory, and codes.

#### Prerequisite: None Required.

This course will provide information about contract documents and construction law to help supervisors recognize the roles and responsibilities of all contracted parties, develop and understand how contract documents can be helpful to solve problems and resolve conflicts, and to develop positive relationships between all parties in the construction process. Topics include: Introduction To Contract Documents and Construction Law; Creating a Positive Environment Through Partnering Contractual Relationships; Contract Forms and Documents; Managing General Conditions; Good Documentation Practice Changes; Differing Site Conditions; Time Impacts; and Negotiation of Resolutions.

#### PFPB 1011

**BMGT 1020** 

7 Sessions 28 Hours

Service Plumber

STP 1 - Leadership & Motivation

STP 5 - Improving Productivity & Managing Project Cost

Prerequisite: None Required.

This course will cover: understanding how project estimates are compiled, how to compare actual project costs with those estimated, and how to control costs to meet the estimate. This course also details how productivity is measured, how the supervisor plays a major role in increasing jobsite productivity, and how a small increase in productivity can have a significant impact on the time and cost of a project.

Topics include: Construction Estimates; Who Controls Project Costs; Reporting and Analyzing Actual Costs; Planning for Cost Control cost control strategies; Labor Cost Variances; Working With Project Partners; Managing Risk and Loss Potentials; Cost Control Strategies; Post-Project Evaluations; Benchmarking Construction Productivity; Improving Productivity Through Pre-Planning; New Skills For Effective Supervision; Personnel Management; Equipment Management For Productivity Improvement; Jobsite Productivity; Planning and Scheduling; Quantifying Lost Labor Productivity and Record Keeping; Control, Changes, & Defect Analysis.

# STP 6 - Risk Management & Problem SolvingOSHT 10156 Sessions24 Hours

This course will cover the roles and responsibilities of a construction supervisor in accident prevention and loss control. Topics include: Safety Leadership; Communication and Expectations; Planning for Site Safety; Site Safety Management; Site Security and Protection; Multi-Employer Jobsite Safety; Construction Risk Management; Safety and Human Resources; and Regulatory Procedures, Record Keeping & Documents.

## TIG Welding

Prerequisite: None Required

Prerequisite: None Required.

This is a TIG (Tungsten Inert Gas) course, also known as GTAW (Gas Tungsten Arc Welding). The course will cover equipment, filler metals, the ASME welding code, and the principles of GTAW. The focus will be on setting up equipment for open-root, V-groove welds on carbon steel and stainless-steel pipes, as well as procedures for making open-root V-groove welds with the equipment on the pipe in the 2G, 5G, and 6G positions.

BMGT 1021

7 Sessions

28 Hours

8 Sessions 30 Hours