## PLUMBING PROGRAM CURRICULUM & REQUIREMENTS

#### MASSACHUSETTS PLUMBING APPRENTICE

#### **Plumbing Journeyman License Requirements**

- · High School Diploma or GED
- 550 classroom hours
- 5,100 field hours under the supervision of a licensed Journeyman or Master
- Apprentices MUST apply for an apprentice license from the Board of State Examiners of Plumbers & Gas Fitters.

### **Plumbing Master's License Requirements**

- MUST hold a Journeyman License for 1 year
- Additional 110 Tier V classroom hours
- Additional 1,700 field hours

### THE BOARD OF STATE EXAMINERS OF PLUMBERS AND GAS FITTERS

Address: 1000 Washington Street, Suite 710 Boston, MA 02118-6100 Phone: (617) 727-3100 mass.gov/dpl

#### **PLUMBING TIER 1**

#### **Course Curriculum Areas of Study:**

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Introduction to Plumbing
- Plumbing Safety
- Tools of the Plumbing Trade

- Introduction to Plumbing Math
- Introduction to Plumbing Drawings
- Plastic Pipe and Fittings
- Copper Tube and Fittings
- Cast-Iron Pipe and Fittings
- Carbon Steel Pipe and Fittings
- Introduction to Plumbing Fixtures
- Introduction to Drain, Waste and Vent (DWV) Systems

## **PLUMBING TIER 2**

#### **Course Curriculum Areas of Study:**

- Plumbing Math Two
- Reading Commercial Drawings
- Structural Penetrations, Insulation and Fire-Stoppingstalling Fixtures and Valves
- Installing and Testing DWV Piping
- Installing Roof, Floor, and Area Drains
- Installing and Testing Water Supply Piping
- · Types of Valves
- Installing Water Heaters
- Basic Electricity
- Fuel Gas and Fuel Oil Systems

## **IMPORTANT UPDATE**

248 CMR 11.00: A reduction of the experience requirements for journeyman licenses down to 4 years, and the elimination of age-based continuing education exemptions.

WHAT THIS MEANS: You can now enroll in Plumbing Tiers 1 and 2 in the <u>same year</u> to complete your education hours in four years instead of five.

# PLUMBING PROGRAM CURRICULUM & REQUIREMENTS

## **PLUMBING TIER 3**

#### **Course Curriculum Areas of Study:**

- Plumbing Math Two
- Reading Commercial Drawings
- Structural Penetrations, Insulation and Fire-Stopping
- Installing and Testing DWV Piping
- Installing Roof, Floor, and Area Drains
- Installing and Testing Water Supply Piping
- Types of Valves
- Installing Fixtures and Valves
- Installing Water Heaters
- Basic Electricity
- Fuel Gas and Fuel Oil Systems

## **PLUMBING TIER 4**

#### **Course Curriculum Areas of Study:**

- Business Principles for Plumbers
- Fundamentals of Crew Leadership
- Water Pressure Booster and Recirculation Systems
- Indirect and Special Waste
- Hydronic and Solar Heating Systems
- Codes

- Private Water Supply Well Systems
- Private Waste-Disposal Systems
- Swimming Pools and Hot Tubs
- Plumbing for Mobile Homes and Travel Trailer Parks
- Introduction to Medical Gas and Vacuum Systems

## **PLUMBING TIER 5**

## **Course Curriculum Areas of Study:**

- Review of all sections of the Massachusetts State Plumbing Code:
  - o 248 CMR 3.00
  - 248 CMR 10.00
  - o 248 CMR 11.00
- · Review of all sections of:
  - NFPA-54-2012
  - NFPA-58-2011
  - Massachusetts Fuel Gas Code 248 CMR 4.00
  - Amendments for NFPA-54-2012 248 CMR 5.00
  - Large Gas Utilization Equipment 248 CMR 7.00 and Amendments to NFPA 58-2011 248 CMR 8.00
- Review of all plumbing related math covered in Tier I through Tier V
- Review of all sketches in Massachusetts State Plumbing Code Section 10.22 Figures
- Business Related Costs