PLUMBING PROGRAM CURRICULUM & REQUIREMENTS

MASSACHUSETTS PLUMBING APPRENTICE

Plumbing Journeyman License Requirements

- · High School Diploma or its equivalent
- 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: One Federal Street, Suite 600 Boston, MA 02110 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-Stopping
 Installing 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 same year to complete your education hours in four years instead of five.

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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
 - o 248 CMR 10.00
 - o 248 CMR 11.00
- · Review of all sections of:
 - o 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