

PLUMBER

APPENDIX A

O*NET CODE 47-2152.02

This training outline is a minimum standard for Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

WORK PROCESSES

	Approximate Hours
A. Proper Use and Care of all Tools Connected with the Trade	500
B. Rigging and Material Handling	200
1. Safe unloading of material.	
2. Use of ladders, scaffolding.	
3. Use of power lifts, personnel lifts.	
C. Identification of Grades, Types and Appropriate Uses of Various Piping Materials	300
D. Installation of Piping for Waste, Soil, Sewage, Vent, Leader	3,500
1. Lines, Hot Water Lines, Hot and Cold Water for Domestic Purposes and Gas for Domestic Purposes	
2. Planning and marking layout.	
3. Cutting structural openings as required	
4. Cutting and threading pipe.	
5. Pipe bending.	
6. Pipe joining.	
7. Caulking of joints.	
8. Connection to outside water, gas and sewage lines.	
9. Inspection of pipe system with pressure gauges.	
E. Soldering of Piping System	600
1. Soft soldering (various types)	
2. Hard soldering (silver-bearing solders)	
3. Brazing.	

F. Welding Connected With the Trade	600
G. Assembly, in Position, and Connection of Fixtures and Appliances Used in Plumbing and Drainage Systems	700
H. Water Purification and Sewage Disposal	600
I. Familiarization With all Tools, Equipment and Replacement Parts Used in Repair and Service; Maintenance of Proper Inventory	500
J. Maintenance and Repair of Plumbing Systems (Including Lead and Tin Pipe Repair)	2,000
K. Temperature Controls: Installation, Service and Repair (optional)	400
L. Gas Piping	50
M. Water Heaters	50
Approximate Total Hours	10,000

Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to <https://dol.ny.gov/public-work-and-prevailing-wage>

PLUMBER
APPENDIX B
RELATED INSTRUCTION

Safety and Health

1. OSHA Construction Safety
2. OSHA 10-Hour Construction Course – if required for Public Work
3. Scaffold Safety
4. Drug and Alcohol Awareness
5. Material Safety Data Sheet (MSDS)
6. First Aid-Minimum 6.5 hours every 3 years
7. Sexual Harassment Prevention Training – must comply with section 201-g of the Labor Law
8. Asbestos Awareness – minimum 4 hours (see attachment)

Industrial History and Labor Relations (20 hours)

1. History and background (6 hours, 1st year)
2. Current laws and practices (14 hours, 2nd year)

History of Plumbing

1. Organization of Plumbing Industry

Mathematics Applied to Plumbing

Building Plan and Blueprint Reading for Plumbers

1. Fundamentals and Advanced

Basic Building Construction

Trade Theory and Science

1. Elementary Drawing/Drafting for Plumbers
2. Physics Applied to Plumbing
3. Chemistry Applied to Plumbing
4. Bacteriology for Plumbers
5. Basic Electricity*
(*If Work Processes “K” is chosen.)
6. Plumbing Laws, Regulations and Ethics
7. Plumbing Materials

8. Fixtures and Appliances
9. Water Supply
10. Sewage Disposal
11. Water Pollution in Plumbing Systems (including back-flow prevention and cross-connection control devices)
12. Soil and Waste Lines
13. Venting
14. Welding
15. Gas Installations
16. Business Aspects of Plumbing

Other Related Courses as Necessary

A Minimum of 216 Hours of Related Instruction are Required for Each Apprentice for Each Year.

Appendix B topics are approved by New York State Education Department.

ATTACHMENT TO APPENDIX B

Asbestos Awareness

This course must be delivered by one of the following:

1. A provider currently approved by the New York State Department of Health to deliver asbestos safety training.
2. A person holding a current Asbestos Handler certificate from the New York State Department of Labor in the title of: Inspector, Supervisor, Project Monitor, Management Planner, or Project Designer.
3. Anyone otherwise approved by the New York State Education Department.

Minimum course contents must include the following:

1. Definition of asbestos
2. Types and physical characteristics
3. Uses and applications
4. Health effects:
 - a. Asbestos-related diseases
 - b. Risks to families
 - c. Cigarette smoking
 - d. Lack of safe exposure level
5. Employer-specific procedures to follow in case of potential exposure, including making a supervisor or building owner immediately aware of any suspected incidental asbestos disturbance so that proper containment and abatement procedures can be initiated promptly.

Notwithstanding the above course requirement, employers are advised that they must also be in compliance with New York State Department of Labor Industrial Code Rule 56 at all times.

Employers are further advised, and must advise all apprentices, that completion of the above course requirement does not authorize any person to remove, encapsulate, enclose, repair, disturb, or abate in any manner, any friable or non-friable asbestos, asbestos containing material, presumed asbestos containing material, or suspect miscellaneous asbestos containing material.