

ORNAMENTAL IRON WORKER

APPENDIX A

O*NET CODE 47-4099.00

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. Tools, Equipment and Materials Handling	500
1. Safety.	
2. Proper use and care of hand tools.	
3. Proper use and care of power tools and equipment.	
4. Proper use and care of safety devices such as belts, scaffolding and nets.	
5. Proper loading, unloading, handling and storage of materials. Using proper hand signals.	
B. Blueprints and Specifications	100
1. Reading blueprints and specifications accurately.	
2. Following blueprints and specifications according to erection plans.	
3. Preparing rough simple sketches, preparing "as built" sketches.	
C. Installation, Plumbing and Aligning	3,000
1. Selection of appropriate metal materials.	
2. Measuring and marking layout on materials, using such devices as rule, template, square and compass.	
3. Cutting metal.	
4. Bending and shaping metal; forging and shaping steel using heat.	
5. Assembling materials according to blueprints and specifications.	
6. Drilling holes in metal, concrete and masonry structural framework. Bolting, clipping, welding, brazing and soldering parts to each other and to structure.	

7. Cutting, mitering, and beveling metal trim and cover plates to specifications.
8. Grinding, filing and other finishing techniques.
9. Verifying levels and plumbness using such devices as plumb bob, laser equipment, transit.
10. Fastening cover plates and molding in place, with metal screws and other fastening materials to finish and trim work.

D. Welding **400**

1. Safety.
2. Welding and cutting.
3. Acetylene.
4. Arc Processes.
5. Welding brackets to lintels, sills, columns and other structural framework.

E. Erecting and Installing **2,000**

1. Doors and frames.
2. Grating and grills.
3. Stairways and railing.
4. Solar screens.
5. Radar reflectors.
6. Fences.
7. Storage tanks.
8. Assembly of prefab metal buildings.

Approximate Total hours **6,000**

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>.

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APPENDIX B

RELATED INSTRUCTION

Safety

1. Fundamentals (4 hours, first year)
2. Trade Safety (12 hours, second year – including procedures for exposure to hazardous chemicals)
3. OSHA 10-hour Construction Course
4. Asbestos Awareness – minimum 4 hours (see attachment)
5. Substance Abuse Awareness
6. First Aid – 6.5 hours minimum every 3 years
7. Sexual Harassment Prevention Training – must comply with Section 201-g of the Labor Law

Industrial History and Labor Relations (20 hours)

1. History and Background (6 hours, first year)
2. Current Laws and Practices (14 hours, second year)

Blueprint Reading and Drawing

1. Elementary Blueprint Reading
2. Freehand Sketching
3. Layout
4. Templates

Mathematics

1. Fundamentals
2. Trade Mathematics

Basic Building Construction

Trade Theory and Science

1. Materials of the Trade
2. Tools, Machines, Equipment
3. Hoisting Equipment, Rigging, Signaling
4. Fundamentals Surveying Skills
5. Welding
6. Cutting

7. Ornamental Work
8. Fastening Devices
9. Finishing Techniques

Other Related Courses as Necessary

A Minimum of 144 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.