

# IRON WORKER (STONE DERRICKMAN & RIGGER) – 3 YEARS

## APPENDIX A

O\*NET CODE 47-2221.00

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

	<b>Approximate Hours</b>
<b>A. Rigging</b>	<b>1,000</b>
1. Safety in rigging procedures	
2. Care and use of fiber line, wire rope, nylon slings and steel chokers	
a. Determining safe working capacity (SWC), inspection and proper use	
3. Using rigging hardware	
a. Determining SWC, inspection and proper use	
4. Using and reeving blocks and tackle	
a. Determining SWC, inspection and proper use	
5. Using slings, chokers, and softeners	
a. Determining SWC, inspection and proper use	
6. Erecting or lifting with cranes (all types) and helicopters	
a. Determining SW radius and capacity	
b. Erection, disassembly, and inspection	
c. Using proper hand and/or radio signals	
7. Using hand and miscellaneous rigging equipment	
8. Using jacks, rollers, and related devices	
9. Using access structures, scaffolds, ramps, ladders, hanging, rolling, etc.	
10. Using hoists, winches, and related devices	
11. Using shoring	
<b>B. Cranes and Derricks</b>	<b>1,000</b>
1. Use of mobile cranes	

- a. Assembly and disassembly
- b. Field inspection and safety, signaling methods
- c. Operating procedures and precautions
- 2. Use of tower and kangaroo cranes
  - a. Assembly and disassembly
  - b. Field inspection and safety, signaling
  - c. Operating procedures and precautions
- 3. Using guy or stiffleg derricks
  - a. Assembly, jumping and disassembly
  - b. Signaling methods, inspection, and safety
  - c. Proper operating procedures and precautions

**C. Welding 1,200**

- 1. Safety
- 2. Oxy-acetylene
  - a. Welding, cutting, heating
- 3. Electric arc processes
  - a. SMAW
  - b. FCAW
  - c. GMAW
  - d. GTAW
  - e. SAW
  - f. SW
- 4. Testing and certification of apprentice as certified welder

**D. Erecting/Installing Natural Stone, Pre-Cast Stone Panels, Pre-Cast Concrete 1,300**

- 1. Safety
- 2. Unloading, handling, storing
- 3. Field layout and use of erection drawings
- 4. Erecting/installing
- 5. Fastening/anchoring methods
- 6. Plumbing, aligning, leveling

**Approximate Total Hours 4,500**

*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. OSHA 10-hour construction course
2. Working safely on a construction site
3. Sub-part R – steel erection standard training – minimum 10 hours
4. Personal protective equipment
5. Material handling without injury
6. Fall protection
7. Scaffold standard
8. Rigging safety
9. Signaling
10. MSDS
11. Silicosis safety
12. Alcohol and substance abuse awareness
13. First aid/CPR – minimum 6.5 hours every 3 years

#### **Blueprints**

1. Blueprint reading
2. Layout

#### **Trade Theory and Science**

1. Using and caring for tools of the trade (hand and power)
2. Loading and operating hand truck
3. Forklift training
4. Handling and storing materials of the trade
5. Stonework rigging
6. Welding and burning
7. Cutting
8. Mixing of cement (including ratios)
9. Erecting/installing
10. Fastening/anchoring

### **Interpersonal Workplace Skills**

1. Industrial and labor relations (20 hours)
  - a. History and background (6 hours, first year)
  - b. Current laws and practices (14 hours, second year)
2. Sexual Harassment Prevention Training – must comply with section 201-g of the Labor Law

### **Other Related Courses as Necessary**

A minimum of 144 hours of Related Instruction is required for each apprentice for each of the first two years of the apprenticeship. A minimum of 280 hours of Related Instruction is required for each apprentice for the third year of the apprenticeship.

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