

WORK PROCESS SCHEDULE AND RELATED INSTRUCTION OUTLINE

IRONWORKER REINFORCING CONCRETE

O*NET/SOC CODE: 47-2171.00

RAPIDS CODE: 0471R

WORK PROCESS SCHEDULE

Job Processes (within courses)	Recommended Job Training Hours- 2 Year Program (4000 hours)
Cutting & Welding Oxyacetylene & other cutting processes, welding safety, basic set-up and understanding of the shielded metal arc related processes.	100
Rigging and cranes Rigging with fiber line; rigging with wire rope; rigging with chains; using rigging hardware; reeving; rigging with slings; specialized rigging; miscellaneous rigging equipment; material handling power equipment; loading and unloading trucks; lattice boom crane; tower crane; kangaroo crane; derricks; Chicago boom; overhead crane; gantry crane; and crane communications.	1000
Post tensioned reinforcing systems Principles and theories of pre-stressed concrete; principles and theories of post-tensioning; components of post-tensioning systems; components of stressing equipment; tools and equipment used to install, stress, grout and finish post-tensioning systems; unloading, handling and storage of post-tensioning components; layout and installation of single strand unbonded post-tensioning systems and components; preparation, stressing and finishing of single strand unbonded post-tensioning systems; components and special requirements for encapsulated systems; layout and installation of multi-strand post-tensioning systems and components; preparation, stressing and finishing of multi-strand post-tensioning systems; layout and installation of bar post-tensioning systems and components; preparation, stressing and finishing of bar post-tensioning systems; grouting of bonded post-tensioning systems; installation, stressing and finishing of post-tensioned barrier cable systems; troubleshooting and repair of post-tensioning systems and equipment on the job.	500

<p>Reinforcing concrete</p> <p>History of reinforcing; manufacturing of reinforcing steel; reinforcing tools, ties and safety practices; structural forms associated with reinforcing steel; bridge and highway construction; placing reinforcing steel; bending, tagging, marking and fabricating reinforcing steel; unloading, handling and storing reinforcing steel; reading engineering and placing drawings; installing bar supports; placing reinforcing in footings; placing reinforcing in walls; placing reinforcing in columns; placing reinforcing in beams and girders; placing reinforcing in joists and slabs; highway and airport pavement; and bar splicing and mechanical couplers.</p>	2400
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**IRONWORKER REINFORCING CONCRETE
RELATED INSTRUCTION OUTLINE**

144 per year Hours x 2 years = 288 Hours (Min.)

Subject Area				Training Center Hours		
	1 st Year	2 nd Year		Total	Classroom	Shop
Required Core Curriculum						
Orientation	10			10	10	0
Reinforcing concrete	74			74	44	30
Post tensioned reinforcing systems		60		60	45	15
Rigging and cranes		24		24	16	8
Cutting and Welding	30	10		40	30	10
Blueprint reading		24		24	24	0
Mathematics for Ironworkers	30			30	30	0
Fork lift		8		8	4	4
10-hour OSHA training		10		10	10	0
First Aid/CPR		8		8	8	0
TOTAL - Yearly	144	144				