

APPRENTICESHIP: FIELD IRON WORKERS (A.S.)

ASSOCIATE OF SCIENCE

The Field Ironworkers A.S. degree prepares students for employment in the construction industry, primarily in ironwork. Through courses focusing on Reinforcing or Structural, students will learn the fundamental principles in basic and supervisory level functions in the construction ironwork industry for continuing academic achievement and professional success. Students can either choose the Reinforcing or Structural core units to complete the Field Ironworkers A.S. degree. Core topics include steel and cable reinforcing in concrete construction (rebar work), erections of steel skeleton of buildings, unbonded and bonded reinforcing post tensioning, rigging of heavy machinery, foreman training, and techniques for greater safety in reinforcing iron. Graduates are employed as journeyman in the field of ironworks, or are self-employed. Spatial intelligence, cognitive ability, and eye-hand coordination are recommended for those entering the program.

Program Student Learning Outcomes

- Demonstrate knowledge of safety guidelines for ironworkers and apprenticeship journeymen in the construction industry.
- Conduct basic and supervisory tasks functions within the construction trades.
- Explain job function differences between structural and reinforcing.
- Recognized resources offered by Cerritos Community College to ironworker's apprentice program.
- Identify industry leaders, government groups, and apprenticeship originations to analyze career goals.
- Demonstrate knowledge of welding, cranes, detailing, reinforcing, structural steel, and rigging in order to perform and supervise ironworker's job functions.

Program Requirements

Code Number	Course Title	Units
Core Requirements		
IWAP 40.07	FIW-Orientation	4.0
IWAP 40.50	IW-Mixed Base-Reinforcing	2.0
IWAP 40.56	IW-Ironworker History Reinforcing	2.0
IWAP 40.63	IW-Structural Lead Hazard	2.0
IWAP 40.09	IW-Gen Rigging	2.0
IWAP 40.22	IW-Cranes	2.0
IWAP 40.10	Welding I-Reinforcing	2.5
IWAP 40.11	Welding II-Reinforcing	2.5
Subtotal		19
Select one of the following options:		15.0-19.0
Option 1: Reinforcing Program		
IWAP 40.12	IW-Reinforcing Iron I (2)	
IWAP 41.03	IW-Reinforcing II (1)	
IWAP 40.15	IW-Post Tension I (2)	
IWAP 41.07	Post-Tension II (2.5)	
IWAP 40.53	IW-Detailing/Reinforcing Iron (2)	
IWAP 40.55	IWS-Reinforcing Foreman Training (2)	
IWAP 41.08	IW-Post Tension III (2)	

IWAP 41.09	IW-Welding III-Reinforcing (1.5)
Option 2: Structural Program	
IWAP 40.21	Structural Steel I (2.5)
IWAP 41.06	IW-Structural Steel II (2)
IWAP 40.05	IW-Welding III (2.5)
IWAP 40.60	Structural Arch Orn I (2.5)
IWAP 41.05	IW-Architectural II (1.5)
IWAP 40.61	IW-Structural Precast Concrete (2)
IWAP 41.04	IW-Architectural III (2.5)
IWAP 40.26	Metal Building Erection I/Foreman Training (2.5)

Total Units **34-38**

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

Completion of a minimum of 60 semester units to include:

1. total major requirements,
2. the general education requirements, and
3. a grade of "C" or better in all courses required by major