

IRW COURSE STUDENT LEARNING OUTCOMES

IRW 101 - Iron Worker 1st Year Apprenticeship

Students will be able to apply industry safety standards including OSHA 10, first aid and CPR.

Students will be able to use math as related to ironworking trades, such as Pythagorean theorem and geometry to prepare a site in a variety of ironworking applications.

Students will be able to demonstrate basic rigging and reinforcing.

Students will be able to use addition, subtraction, multiplication, division, and multiple operations with common and decimal fraction as applied to Iron Worker problems.

Students will be able to demonstrate multiple modes of communication towards enhancing effectiveness in the work environment.

Students will be able to demonstrate how to communicate accumulated technical data effectively with co-workers to apply that information toward completion of work assignments.

IRW 151 - Iron Worker 2nd Year Apprenticeship

Students will be able to accurately use concrete precast erection practices, interpreting acceptable tolerances; erect primary and secondary framing systems; and plan, schedule, and erect structural steel columns and beams.

Students will be able to operate layout equipment, apply sealants and install ornamental metals and doors accurately.

Students will be able to use algebraic formulas and apply geometric concepts to solve various installation situations they will encounter on job sites.

Students will be able to use welding equipment and perform a variety of basic applications.

IRW 201 - Iron Worker 3rd Year Apprenticeship

Students will be able to install bridging and erect joists of various types, weld connections, install metal decking and other structural steel to understand how work on bridges, towers, etc.

Students will be able to perform advanced rigging and reinforcing.

Students will be able to perform calculations using trigonometry involving right triangles, Pythagorean Theorem, trigonometric functions and apply these operations to Iron Worker problems.

Students will be able to use welding equipment and perform a variety of intermediate applications.

IRW 251 - Iron Worker 4th Year Apprenticeship

Students will be able to construct curtain and window walls, erect store fronts and entrance ways with ornamental metals.

Students will be able to demonstrate proficiency in the handling of hazardous materials (Hazmat).

Students will be able to use welding equipment and perform a variety of the most advanced applications.