

Term III Structural and Pipe Welding NCCER modules and Lab Hours

Welding and Construction Safety (10 class hours)

Covers safety equipment, protective clothing, and procedures applicable to the cutting and welding of metals.

29207-09 GTAW – Equipment and Filler Materials (8 class hours / 2 lab hours)

Explains GTAW safety. Identifies and explains the use of GTAW equipment, filler metals, and shielding gases. Covers the setup of GTAW equipment.

29208-09 GTAW – Plate (4 class hours / 65 lab hours)

Describes how to weld in all positions using GTAW with carbon steel filler metal. Covers making multi-pass V-butt open-groove welds with carbon steel filler metal in the 1G, 2G, 3G, and 4G

29304-10 GTAW – Carbon Steel Pipe (8 class hours / 105 lab hours)

Explains how to set up GTAW equipment. Covers the procedures and techniques used to make V-groove pipe welds with GTAW in the 1G-ROTATED, 2G, 5G, and 6G positions for carbon steel pipe.

29201-09 Welding Symbols (8 class hours)

Identifies and explains the different parts of a welding symbol.

Describes different types of fillet weld, groove weld, and nondestructive examination symbols. Explains how to read welding symbols on drawings, specifications, and welding procedure.

29202-09 Reading Welding Detail Drawings (30 class hours)

Identifies and explains welding detail drawings. Describes lines, fills, object views, and dimensioning on drawings. Explains how to use notes on drawings and the bill of materials.

HANDS ON WELDING TEST: 2” Schedule 80 Carbon Steel 6G GTAW Pipe Weld

(10 hours practice and testing) Total Class Hours- 68 Total Lab Hours – 182 Total Clock Hours for Level III – 250