Course: WEL 204
Title: Flux Cored Arc Welding II
Long Title: Flux Cored Arc Welding II

covers safety inspections, minor repairs, operating parameters, operating FCAW equipment utilizing gas shielded wire, and applying fundamentals of welding applications and cost estimating to welding, fabrication, and inspection.

Min Credit: 4

STANDARD COMPETENCIES:

I. Follow shop safety practices.
II. Maintain a clean, safe work area.
III. Prepare assigned records.
IV. Follow assigned instructions to complete work assignments.
V. Participate in assigned fabrication projects.
VI. Perform safety inspections on FCAW equipment.
VII. Make minor external repairs as necessary to FCAW equipment.
VIII. Set up for FCAW on plain carbon steel.
IX. Operate FCAW equipment.
X. Make fillet welds, all positions on plain carbon steel using gas shielded wire.
XI. Make groove welds, all positions on plain carbon steel using gas shielded wire.
XII. Examine tack and completed welds.
XIII. Execute corrective actions to repair surface flaws on welds and base metals.
XIV. Recognize fundamental principles of the FCAW process.
XV. Explain fundamental principles of the FCAW process.
XVI. Apply principles of welding applications to welding, fabrication, and inspection.
XVII. Apply principles of material selection to welding, fabrication, and inspection.
XVIII. Estimate welding costs and materials.

TOPICAL OUTLINE:

I. Safety and Record Keeping
   A. Follow shop safety practices.
   B. Maintain a clean, safe work area.
   C. Prepare assigned records.
   D. Follow assigned instructions to complete work assignments.
   E. Participate in assigned fabrication projects.
   F. Perform safety inspections on FCAW equipment.
   G. Make minor external repairs as necessary to FCAW equipment.

II. Equipment Setup and Operation
A. Set up for FCAW on plain carbon steel.
B. Operate FCAW equipment.
C. Make fillet welds, all positions on plain carbon steel using gas shielded wire.
D. Make groove welds, all positions on plain carbon steel using gas shielded wire.
E. Examine tack and completed welds.
F. Execute corrective actions to repair surface flaws on welds and base metals.
G. Recognize fundamental principles of the FCAW process.
H. Explain fundamental principles of the FCAW process.

III. Weld Estimating and Process/Material Selection
A. Apply principles of welding applications to welding, fabrication, and inspection.
B. Apply principles of material selection to welding, fabrication, and inspection.
C. Estimate welding costs and materials.