

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