

Welding II**One Semester (1 credit)**

Book: Modern Welding

Althouse, Turnquist, Bowditch, Bowditch

Course grade is determined accordingly:

Welds 55%

Daily Work 20%

Tests 15%

Worksheets 5%

Housekeeping 5%

Prerequisite: Successful completion of Welding I

This advanced Welding class is designed to further the students knowledge in welding and drafting symbols associated with welding. The student will complete single pass horizontal welds with GMAW, SMAW, GTAW, OXYFUEL.

1. Measurements

- A. Reading Ruler
- B. Reading Micrometer

2. Welding Symbols p. 33 – 49

- A. Edge Shapes
- B. Basic Welding Symbols

3. Testing Welds p. 665 – 683

- A. Destruction
 - Visual
 - Magnetic Particle Inspection
 - X-Ray
 - Pneumatic / Hydraulic pressure (pipe)
- B. Destructive
 - Bend Test
 - Tensile Strength L
 - Impact Test
 - Cut / Microscope

4. Set Up of Welding Equipment

- A. Oxyfuel p. 134 – 137
- B. Smaw p. 247 – 252
- C. Gmaw p. 370 – 374
- D. Gtaw p. 338 – 353

5. Oxy Fuel Welds p. 95 – 158

- A. Butt
- B. Lap
- C. Edge
- D. Cut 2 _ x 2 _ plate

6. Braze Welds p. 95 – 158

- A. Pad 1 x 5
- B. Butt
- C. Lap

7. Smaw – 6013 p. 229 – 293

- A. 3 x 3 pad of beads

8. Smaw – 6011 Horizontal p. 229 – 293

- A. Butt
- B. Tee
- C. Edge
- D. Lap
- E. Corner
- F. Pipe/Flat

9. Smaw – 7018 Horizontal p. 229 – 293

- A. Butt
- B. Tee
- C. Edge
- D. Lap
- E. Corner
- F. Pipe/Flat

10. Gmaw Horizontal p. 365 – 396

- A. Butt
- B. Corner
- C. Lap
- D. Edge
- E. Tee
- F. Pipe/Flat

11. Gtaw Flat p. 297 – 333

- A. Continuous Beads
- B. Corner
- C. Tee
- D. Pipe/Flat
- E. Butt
- F. Lap

12. Safety

- A. GMAW
- B. GTAW
- C. SMAW
- D. OXYFUEL