

**Welding I****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%

No Prerequisite

This class is designed to instruct students in safety procedures and basic welding and cutting techniques used in industry. Students will be introduced to SMAW, GMAW and OXYFUEL.

1. Safety pg.9
  - A. General
  - B. Oxy-fuel
  - C. Arc
  - D. Mig
  - E. Tig
  
2. Metallurgy/metal identification pg. 18
  - A. Properties
  - B. Heat treatment
  - C. Classes of carbon steel/ spark test
  - D. Alloy steels
  
3. Welding symbols pg, 25
  - A. Reading a drawing
  - B. Reading a ruler
  - C. Basic welding symbols
  
4. Weld joints pg. 39
  - A. Terminology
  - B. Joint types

5. Oxy-fuel welding pg. 50

- A. Set-up
- B. Safety
- C. Protective equipment
- D. Cutting 3x3 plates
- E. Welding
  - a. Stringer beads (3)
  - b. Puddle (3)

6. Arc welding pg. 97

- A. Set-up
- B. Safety
- C. Protective equipment
- D. Electrode selection/ identification
- E. Weld plate

6013/ 7014	6011	7018
1. 3x3 plate	1.3x3 plate	1.3x3 plate
2. Butt	2. Butt	2. Butt
3. Lap	3. Lap	3. Lap
4. Edge	4. Edge	4. Edge
5. Corner	5. Corner	5. Corner
6. Tee	6. Tee	6. Tee
	7. Plug	

7. Mig welding pg. 230

- A. Set-up
- B. Safety
- C. Protective equipment
- D. Weld flat
  - 1. 3x3 plate
  - 2. Butt
  - 3. Lap
  - 4. Edge
  - 5. Corner
  - 6. Tee
  - 7. Plug
- E. Weld horizontal
  - 1. 3x3 plate
  - 2. Butt
  - 3. Lap