WLD 112 – Thermal Cutting and Welding 3 Credits

Upon successful completion of the following competencies, students may earn Programs of Study credits.

Part 1: Thermal Cutting (36 hours minimum)
1. Straight Cutting – using 3/8” x 4” x 8” Plate
2. Straight Cutting – using 9/16” x 4” x 8” Plate
3. Round Bar – 1/4” x 1” material; 90° cut and 35° bevel
4. Square Tube (or rectangular tube) - Any size or thickness or material
5. H & I Beam – any available material; any size or thickness
6. Angle Iron (or Channel Iron) – any available material; any size or thickness
7. Bevel 35° Straight Cut – 3/8” and 9/16” plate
8. Scarfing – remove cracks, seams, scabs, breaks
10. Pipe Straight, bevel 30° - any 4”, 6”, 8” or 10” pipe; any 40 – 120 schedule thickness
11. Machine Cutting (Repeat Task #1, #2 and #7)
12. Optional - Machine Cutting (Repeat Task #10)
13. Optional - Plasma Arc Cutting
14. Optional - Carbon Arc Cutting

Part 2: Oxy-Acetylene Gas Welding (24 hours minimum)
15. Carbon Steel Running Bead without Rod
16. Carbon Steel Running Bead with Rod
17. Butt Joint
18. Tor Corner Joint
19. Lap Joint
20. Brazing Running Beads
21. Brazing Butt Joint
22. Brazing Lap Joint
23. Brazing T Joint
24. Optional - Aluminum Running Beads
25. Optional - Aluminum Butt Joint

These course competencies have been approved by:
Shawn McDaniels, BBCC Faculty