**Elgin Community College**

**Course Outline**

**WEL208 Welding III**

**Instructor: David Reich**

**Phone: 847-214-7235**

**Description:**

**The student will perform weld using mild steel in all positions and will include arc, gas tungsten arc (TIG), submerged arc welding (SAW), and gas metal arc (MIG) processes. The student will become comfortable in the operation of plasma arc cutting. Emphasis will be on development of a degree of skill necessary to pass welder qualification tests in all positions.**

**4 Credit Hours**

**Books Required**

**Submerged Arc Welding, Miller Electric**

**Why Innershield, Lincoln Electric**

**Innershield: The Answer to Welding Productivity, Lincoln Electric**

**\*\*Gas Metal Arc Welding GMAW-B, Hobart,**

**\*\*Gas Tungsten Arc Welding GTAW, Hobart**

**Course Outline**

**A. Low Hydrogen Shielded Metal Arc Welding**

**B. Welding Thick Sections in SMAW & GMAW**

**C. Air Carbon Arc Gouging**

**D. Air-tight Welding**

**E. Use of Turntable and Positioners in Welding**

**F. Thick to Thin GTAW**

**G. Welder Qualification, Out of Position, GMAW**

**H. Aluminum GMAW Welding**

**Course Content Outcomes**

**Students will be proficient in MIG, TIG, and shielded metal arc welding to the degree that they will be able to pass qualification tests using any process in any position.**

**Measures of Student Performance**

**Grades earned on required welds will be averaged. Student must pass simulated GMAW qualification test to pass the course.**

This course meets the agreed upon terminal objectives for the Welding Program.

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