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| Elgin Community College |
| Course Outline |
| **Welding 101**  **Instructor: David Reich**  **Phone: 847-214-7235**  **Description: Basic concepts of oxy-acetylene welding and electric welding for beginners. Includes arc welding and gas welding, brazing and cutting in the flat position.**  **2 Credit Hours**    **Books, Supplies, and Supplementary Materials**  ***Required***  **Hobart. Shielded Metal Arc Welding SMAW-B . ISBN: 9970050451**  **Hobart. Oxyacetylene Welding & Cutting . ISBN: 9970050508**  ***Supplementary materials***  **Welding Safety: The Way the Pro's Do It," Lincoln**  **"Oxyacetylene Welding, Cutting, & Brazing," Hobart Brothers**  **Oxyfuel Safety," Smith**  **Oxyacetylene Welding Safety, LTee**  **How to Weld with the Thunderbold AC/DC, Miller Electric**  **Shielded Metal Arc Welding/Basic," Hobart Brothers**   1. **Course Outline**   **1.  Basics of Welding Safety 2.  Basics of Shielded Metal Arc Welding 3.  Basics of Oxyacetylene Welding 4.  Establishing a Stable Arc 5.  Determining Proper Amperage Setting & Electrode Selections 6.  Importance of Slag Removal/Weld Cleaning 7.  Oxyacetylene Welding Equipment Identification and Operation 8.  Recognition of Flame Types 9.  Developing Eye-Hand Coordination to Allow Production of Quality Welds**   1. **Outcomes**     1. ***Course Content Outcomes***        1. **The student will be able, on completion of the course, to produce high quality common arc welds in the flat and horizontal positions as evaluated by the instructor.**       2. **The student will be able to produce high quality oxyacetylene welds, brazing, cuts, and pierces on course completion as observed by the instructor.**       3. **On successful completion of the final exam, the student will display transference of learning by producing a good weld which has not been demonstrated.** 2. **Measures of Student Performance**     * 1. **Mid-term exam - weight of 1 weld  14 required welds - weight of 14 welds  Final exam (1 weld - 2 weld grades) Written exam - 1 weld  Student may miss up to 5% of classtime - work made up results in no loss of grade.** |
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This course meets the agreed upon terminal objectives for the Welding Program.

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