



## **BAKER COLLEGE STUDENT LEARNING OUTCOMES**

### **DSL 1510 Basic Welding, Cutting and Fabrication 3 Semester Hours**

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#### **Student Learning Outcomes & Enabling Objectives**

1. Demonstrate safety precautions related to the proper use of welding equipment.
  - a. Explore the importance of safety when working with electricity.
  - b. Explore the important of safety when working with hazardous fumes and gases.
  - c. Use proper techniques when working with welding equipment and tools so as to not cause harm to yourself or others in the shop.
  - d. Use proper procedures to setup and safely operate the different welding machines.
  
2. Demonstrate proper techniques in the cutting process (Plasma Arc and Oxyfuel Gas) during welding operations.
  - a. Identify the different types of cutting processes.
  - b. Identify the different tools and equipment used in various cutting applications.
  - c. Use Plasma Arc and Oxy-fuel equipment and techniques for cutting material needed for a welding application.
  
3. Demonstrate proper techniques in the SMAW (Shielded Metal Arc Welding) process.
  - a. Show proper positioning using the SMAW technique.
  - b. Show competence in welding joints using the SMAW technique.
  
4. Demonstrate proper techniques in the GMAW (Gas Metal Arc Welding) process.
  - a. Show proper positioning using the GMAW technique.
  - b. Show competence in welding joints using the GMAW technique.

#### **Essential Questions**

1. How do I ensure my safety and the safety of others during the welding process?
2. How do I determine the appropriate type of welding process?

3. How do welders determine the quality of the welds?
4. How does knowing fabrication make me a valuable employee?

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These SLOs are approved for experiential credit.

**Effective: Fall 2017**