BAKER COLLEGE
STUDENT LEARNING OUTCOMES
WELD 1260 Shielded Metal Arc Welding
4 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Demonstrate appropriate safety precautions for shielded metal arc welding (SMAW).
    a. Apply general industrial safety precautions while working.
    b. Apply necessary safety precautions related to welding.
    c. Demonstrate appropriate use of personal protection equipment.
    d. Properly set-up and tear down welding machinery.

2. Distinguish when and why various types of welding processes are used.
    a. Identify the consumables and their uses for shielded metal arc welding (SMAW).
    b. Identify the uses for brazing and soldering.
    c. Investigate the advantages and limitations for shielded metal arc welding.

3. Demonstrate various techniques for shielded metal arc welding (SMAW).
    a. Identify defects in a weld and what caused them.
    b. Determine the quality of a weld.
    c. Examine the positions needed for various welding situations.
    d. Identify various joint fit-ups used in welding.
    e. Identify appropriate filler metals and their uses.
    f. Identify various electrodes and their uses.
    g. Examine the 5 essentials of welding. (SMAW)
    h. Identify the parts of a weld.

Big Ideas and Essential Questions

Big Ideas

- Shielded Metal Arc Welding (SMAW)
- Safety

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. Why do we use shielded metal arc welding over other welding processes?
4. How do welders determine the quality of the weld?

These SLOs are approved for experiential credit.

Effective: Fall 2017