

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: WEL 121

Credits: 2

Course Title: Arc Welding

Course Description (including lecture hours, lab hours, total contacts)

Studies the operation of AC and DC power sources, weld heat, polarities, and electrodes for use in joining various alloys by the SMAW process. Covers welds in different types of joints and different welding positions. Emphasizes safety procedures. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

General Course Purpose

Studies the operation of AC and DC power sources, weld heat, polarities, and electrodes for use in joining various alloys by the SMAW process. Covers welds in different types of joints and different welding positions. Emphasizes safety procedures.

Course Prerequisites/Corequisites (*Entry-level competencies **required** for enrollment*)

None

Course Objectives (Each item should complete the following sentence.)

Upon completing the course, the student will be able to:

- a. Recognize and practice safe procedures while welding
- b. Demonstrate the ability to perform correct equipment set-up
- c. Demonstrate the ability to perform quality welds in flat, horizontal, vertical and overhead positions

Major Topics to be Included

- a. Safety
- b. Equipment set-up
- c. Flat weld
- d. Horizontal weld
- e. Vertical weld
- f. Overhead weld

Effective Date of Course Content Summary (Month, Date Year): 1-9-2009