

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

Course Prefix and Number: WEL 124

Credits: 3

Course Title: Shielded Metal Arc Welding (Advanced)

Course Description: Continues instruction on operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose: This course is designed for students who wish to study the operation of AC and DC power sources, weld heat, polarities, and electrodes for use in joining various alloys by the Shielded Metal Arc Welding (SMAW) process. It covers welds in different types of joints and different welding positions. Emphasizes safety procedures.

Course Prerequisites and Co-requisites:

None

Course Objectives:

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; and
- 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: January 30, 2016