

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

Course Prefix and Number: WEL 150

Credits: 2

Course Title: Welding Drawing and Interpretation

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

Teaches fundamentals required for successful drafting as applied to the welding industry. Includes blueprint reading, geometric principles of drafting and freehand sketching, basic principles of orthographic projection, preparation of drawings and interpretation of symbols. Lecture 2 hours per week.

General Course Purpose

A required course for the Welding Career Studies Certificate

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

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

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

- a. Identify six (6) types of lines
- b. Properly sketch and dimension orthographic drawing of a variety of shapes
- c. Apply proper tolerance to a drawing
- d. Read a standard title block and standard notes from a drawing such as thread and finish procedure
- e. Read assembly drawings and fabrication drawings
- f. Recognize weld symbols on a drawing and determine weld size and special processing
- g. Identify a large variety of basic machine and welding terms

Major Topics to be Included

- a. Line meaning
- b. Views of object
- c. Sketching
- d. Measurement
- e. Tolerance
- f. Threads
- g. Fabrication
- h. Welding terms
- i. Welding symbols
- j. Weld size
- k. Supplementary welding data
- l. Basic machine terminology

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