

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

Course Prefix and Number: WEL 126

Credits: 3

Course Title: Pipe Welding I

Course Description: Teaches metal arc welding processes, including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with Section IX of the ASME Code. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose: To assist students in developing the skills needed to make the transition from structural welding to pipe welding and to find employment as a skilled pipe welder.

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Develop a basic understanding of pipe layout;
- b. Identify the more commonly used pipe symbols;
- c. Develop an understanding of the basic terms and nomenclature associated with pipe and pipe welding;
- d. Develop the skills necessary to weld pipe properly; and
- e. Develop the skills necessary to use the basic tools needed to lay out pipe for fabrication and welding.

Major Topics to Be Included:

- a. Safety
- b. Tools and equipment
- c. Pipe symbols and terminology
- d. Pipe layout and fabrication
- e. Thin wall pipe and tubing
- f. Pipe welding techniques

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