J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number:  WEL 120  Credits:  2

Course Title:  Introduction to Welding

Course Description:  Introduces history of welding processes. Covers types of equipment and assembly of units. Stresses welding procedures such as fusion, non-fusion, and cutting oxyacetylene. Introduces arc welding and plasma arc cutting. Emphasizes procedures in the use of tools and equipment. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

General Course Purpose:  To provide students with a basic knowledge of the fundamentals of various welding and cutting processes necessary to begin employment in the welding field.

Course Prerequisites and Co-requisites:  None

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Recognize and use proper safety procedures while welding;
b. Demonstrate the ability to perform correct SMAW equipment set-up;
c. Demonstrate the ability to perform correct oxyacetylene equipment setup; and
d. Demonstrate the ability to perform basic brazing, cutting, and welding procedures on carbon steel.

Major Topics to Be Included:
a. Safety
b. SMAW equipment
c. Oxyacetylene equipment
d. Plasma arc cutting
e. Oxyacetylene cutting
f. Oxyacetylene welding
g. Torch brazing
h. Shielded metal arc welding

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