

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

Course Prefix and Number: WEL 164

Credits: 3

Course Title: Gas Tungsten Arc Welding (GTAW), Tungsten Inert Gas (TIG)

Course Description:

Introduces practical operations in the use of tungsten arc welding and equipment. Studies equipment operation setup, safety, and practice of GTAW (TIG). Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose:

The purpose of this course is to assist students in developing job skills needed to enter the work force in the welding occupation and to acquire the skills necessary to find employment as a TIG welder.

Course Prerequisites and Co-requisites:

None

Course Objectives:

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

1. Recognize and use proper safety procedures while welding;
2. Demonstrate the ability to perform correct equipment setup;
3. Demonstrate the ability to use TIG welding equipment; and
4. Demonstrate the ability to successfully complete TIG welds.

Major Topics to be Included:

1. Safety
2. Equipment setup
3. Selection of filler materials and gasses
4. Selection of TIG consumables
5. TIG welds in the various positions

Effective Date of Course Content Summary: June 2, 2016