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**Course Prefix/No.:** WLD 208  
**Course Title:** Advanced Pipe Welding  
**Lecture Hours/Week:** 2.0  
**Lab Hours/Week:** 3.0  
**Credit Hours/Semester:** 3.0

[Distance Learning Attendance/VA Statement](#)  
[Textbook Information](#)

**COURSE DESCRIPTION:**

This course is a study of advanced pipe welding. It also covers the processes to fit and weld ferrous and non-ferrous metals.

**COURSE COMPETENCIES:**

Upon successful completion of this course, the student should be able to:

**Module 1 – Gas Tungsten Arc Welding – Carbon Steel Pipe - Cutting**

- Demonstrate personal and shop safety at all times.
- Describe the procedures used to cut pipe at a specified angle by hand and by machine.

**Module 2 – Gas Tungsten Arc Welding – Carbon Steel Pipe - Welding**

- Describe the procedure used to perform an Open Butt 6010 root pass from the 6G position (pipe inclined fixed on 45 degrees).
- Describe the procedure used to perform a Filler Pass with 7018 Stringer Beads from the 6G position.
- Describe the procedure used to perform a Cover Pass with 7018 Weave Pattern from the 6G position.
- Describe the procedure used to perform a Cover Pass with 7018 Stringer Beads from the 6G position.

**Module 3 – Gas Tungsten Arc Welding – Stainless Steel Pipe - Cutting**

- Demonstrate personal and shop safety at all times.
- Describe the procedures used to cut pipe at a specified angle by hand and by machine.

**Module 4 - Gas Tungsten Arc Welding – Stainless Steel Pipe - Welding**

- Describe the procedure used to tack-up the pipe.
- Describe the procedure used to purge the oxygen from the pipe using argon.
- Describe the procedure used to perform a weld out of the pipe in the 6G position.

**MINIMAL STANDARDS:**

Assignments and attendance must be completed as designated in “Evaluation Strategies/ Grading.” Criteria for minimal acceptable performance will be provided by the instructor.

## **COURSE REQUIREMENTS:**

### **Attendance Policy**

The college attendance policy stated in the college handbook will be honored. The instructor will provide specific requirements for the course.

### **Academic Honesty**

Students are expected to adhere to the college policy regarding student conduct as stated in the college handbook.

### **Assignments**

Students are expected to complete all assignments and any supplementary exercises designated by the instructor.

## **EVALUATION STRATEGIES/GRADING:**

Successful completion of the course requires the completion of each of the eight modules, all tests/projects (minimum of eight total), and all assignments with an average of 70 points in each area. In addition, the student must score an average of 70 points each in the area of Lab Work and Work Attitude.

### **Grading Scale**

A = 90 – 100

B = 80 – 89

C = 70 – 79

D = 60 – 69

F = 00 – 59

### **Evaluation Method**

Lab/Shop Projects                      75% of each Module

Work Attitude                              25% of each Module

100% Final Grade

Work Attitude is defined as:

- Participation
- Cooperation
- Appearance
- Effort
- Safety
- Responsibility
- Professionalism
- Attendance
- Self Motivation
- Works Independently

## **METHODS OF INSTRUCTION:**

Lectures, reading assignments, projects, discussions, video presentations, multimedia presentations, and web content are the major teaching methods used in this course. See instructor for specifics.

**ENTRY LEVEL SKILLS:**

The student must exhibit traits of maturity (e.g. responsibility, seriousness of work, etc.) and should be able to read and write English, have good manual dexterity, good eyesight, and good eye-hand coordination.

**PREREQUISITES:** RDG 031 or equivalent and WLD 154

**CO-REQUISITES:** None

**Disabilities Statement:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.

Effective: 2004SU