COURSE INFORMATION: Effective: 2004SU

Course Prefix/No.: WLD 136
Course Title: Advanced Inert Gas Welding
Lecture Hours/Week: 1.0
Lab Hours/Week: 3.0
Credit Hours/Semester: 2.0

VA STATEMENT
TEXTBOOK INFORMATION

COURSE DESCRIPTION:

This course covers the techniques for all positions of welding ferrous and non-ferrous metals.

COURSE COMPETENCIES:

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

Module 1 – Gas Metal Arc Welding (E70S2)

- Demonstrate personal and shop safety at all times.
- Identify all components of a gas metal arc welding system.
- Demonstrate the proper startup procedures:
    1. Select the correct polarity for the wire.
    2. Select the correct amperage setting for the size wire.
- Describe the proper configuration and characteristics of a Butt joint.
- Produce a quality weld of a Butt joint in each of the following positions:
    1. Flat position.
    2. Vertical position.
    3. Horizontal position.
    4. Overhead position.

Module 2 – Gas Metal Arc Welding (E70S2) – Lap joint

- Describe the proper configuration and characteristics of a Lap joint.
- Produce a quality weld of a Lap joint in each of the following positions:
    1. Flat position.
    2. Vertical position.
    3. Horizontal position.
    4. Overhead position.

Module 3 – Gas Metal Arc Welding (E70S2) – Tee joint

- Describe the proper configuration and characteristics of a Tee joint.
- Produce a quality weld of a Tee joint in each of the following positions:
    1. Flat position.
    2. Vertical position.
    3. Horizontal position.
    4. Overhead position.

Module 4 – Gas Metal Arc Welding (E70S2) – Open Butt weld or joint

- Describe the proper configuration and characteristics of a Open Butt weld or joint.
- Produce a quality weld of a Butt joint in each of the following positions:
    1. Flat position.
    2. Vertical position.
    3. Horizontal position.
    4. Overhead 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.

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 a minimum of 70 points in each area. In addition, the student must score a minimum of 70 points each in the area of Lab Work and Work Attitude.

Grading Scale:

A = 90 – 100	D = 60 – 69
B = 80 – 89	F = 00.0 – 59
C = 70 – 79	

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

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/CO-REQUISITES:

Prerequisite:

RDG 031 or equivalent

Co-requisite:

None

METHODS OF INSTRUCTION:

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

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