

# Virginia Western Community College

## WEL 130

### Inert Gas Welding (MIG)

#### **Prerequisites**

WEL 120 or division approval.

#### **Course Description**

Introduces practical operations in the uses of inert-gas-shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.

**Semester Credits: 3 Lecture Hours: 2 Lab/Clinical/Internship Hours: 3**

#### **Required Materials**

##### **Textbook:**

Modern Welding. 11<sup>th</sup> Edition. ISBN 978-1-60525-795-2.

##### **Other Required Materials:**

None.

#### **Course Outcomes**

**At the completion of this course, the student should be able to:**

Introduces practical operations in the uses of inert-gas-shield arc welding. Discusses equipment, safety operations, welding practice in the various positions, process applications, and manual and semi-automatic welding.

#### **Topical Description**

- WEEK 1 Introduction to GMAW  
    Lab: Introduction and Identification
- WEEK 2 Lesson 9 A Handout  
    Lab: Create a stringer bead and build a pad
- WEEK 3 Lesson 9 A Handout  
    Lab: Create a stringer bead and build a pad
- WEEK 4 Lesson 9 B Handout  
    Lab: Job 9 C-1 Handout
- WEEK 5 Lesson 9 B Handout

- Lab: Job 9 C-1 Handout
- WEEK 6 GMAW Safety from Chapter 9
  - Lab: Job 9 C-2 Handout
- WEEK 7 Test One
  - Lab: Job 9 C-2 Handout
- WEEK 8 Lesson 9 B-1 Handout
  - Lab: Job 9 C-3 Handout
- WEEK 9 Chapter 9 Correct torch movement for position
  - Lab: Job 9 C-3 Handout
- WEEK 10 Lesson 9 C Handout
  - Lab: Job 9 C-4 Handout
- WEEK 11 Test Two
  - Lab: Job 9 C-4 Handout
- WEEK 12 Handout
  - Lab: Job 9 C-5 Handout
- WEEK 13 Handout
  - Lab: Job 9 C-6 Handout
- WEEK 14 Lab Projects
  - Lab: Begin Vertical weld position
- WEEK 15 Lab Projects
  - Lab: Continue Vertical weld position
- WEEK 16 Final Exam
- All Job sheets are due at the end of each class.

## **Notes to Instructors**

- None