



## **WELD-131-BASIC MIG WELDING 4 CREDITS**

### **SYLLABUS**

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#### **CATALOG DESCRIPTION**

A basic course designed to provide the student with the ability to setup, maintain, and operate Metal Inert Gas (MIG) welding equipment safely. Develop the necessary skills to weld structural joints and bend tests in all positions utilizing mild steel plate. Visual and destructive testing methods will be used to determine weld quality.

Corequisites: WELD-129, WELD-132

Prerequisites: WELD-130

Semester Offered: Fall, Spring

#### ***Common Student Learning Outcomes***

*Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...*

##### **BROAD AND SPECIALIZED LEARNING**

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

##### **CRITICAL THINKING**

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

##### **CULTURAL AND CIVIC ENGAGEMENT**

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

##### **EFFECTIVE COMMUNICATION**

Students will exchange ideas and information with clarity in multiple contexts.

##### **INFORMATION LITERACY**

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

##### **INTEGRATING TECHNOLOGIES**

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

*Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.*

#### **Course Learning Outcomes**

1. Provide the student with the knowledge and understanding to set-up plus operate MIG welding equipment.

2. Utilize the MIG equipment to weld mild steel and aluminum plate in all positions.

### **Specific Learning Outcomes**

Upon successful completion of the course, the student will be able to...

1. Safely use MIG equipment.
2. Select the appropriate gas used in the operation of the MIG.
3. Select the correct wire type and size for specific MIG welding applications.
4. Weld basic structural joints and perform bend tests in all positions on mild steel plate.
5. Weld basic structural joints on aluminum plate.