SAN JUAN COLLEGE
Success Matters

WELD-132-BASIC TIG WELDING 4 CREDITS

SYLLABUS

CATALOG DESCRIPTION

A basic course designed to provide the student with the ability to setup, maintain and operate Tungsten Inert Gas (TIG) equipment safely. Develop the necessary skills to weld structural joints and perform bend tests in all positions utilizing mild steel plate. Weld quality will be measured with visual and destructive testing methods.

Corequisites: WELD-129, WELD-130

Prerequisites: WELD-131

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 and operate TIG welding equipment.
2. Utilize the TIG 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 TIG equipment.
2. Select the appropriate gas to be used in the operation of the TIG.
3. Select the correct wire type and size for different TIG welding applications.
4. Weld basic structural joints and perform bend test in all positions on mild steel plate.
5. Weld basic structural joints on aluminum plate.