

WELD-208 ADVANCED 2-G/5-G PIPE WELDING

3 CREDITS

SYLLABUS

CATALOG DESCRIPTION

A continuation of Pipe Welding. The 2-G and 5-G positions will be covered utilizing both the Shielded Metal Arc Welding and TIG welding processes. Theory and practice in modern welding methods of pressure pipe lines and piping systems will be covered.

Prerequisites: WELD-204, WELD-205, WELD-206, WELD-207

Corequisites: WELD-209, WELD-217, WELD-218, WELD-229

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

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

1. Obtain the knowledge and ability to weld pipe using E-6010 and E-7018 electrodes in combination, along with the SMAW and TIG welding processes in the 2-G and 5-G position.

SPECIFIC LEARNING OUTCOMES

1. Weld pipe using stick and TIG welding processes
2. Weld in the 2-G and 5-G positions
3. Recognize defective welds and use corrective actions to improve weld quality.
4. Visually inspect for weld quality.
5. Weld then prepare test coupons that will withstand a root and face bend. Inspection will consist of both visual and destructive methods.