

## **WELD-218 PIPE FABRICATION & LAYOUT 4 CREDITS**

### **SYLLABUS**

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#### **CATALOG DESCRIPTION**

A continuation of Pipe Fabrication and Layout I. Emphasis on construction techniques using a variety of joint designs in the piping industry will be covered.

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

Corequisites: WELD-208, WELD-209, WELD-217, 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. Construction of various pipe joints using templates.
2. Use of formulas for pipe fabrication.

3. Layout techniques for piping systems.

#### SPECIFIC LEARNING OUTCOMES

1. Construct and weld Branch and Headers in equal and un-equal diameters.
2. Construct and weld Eccentric Branch and Headers.
3. Construct and weld Lateral connections.
4. Construct and weld 60 degree True "Y".
5. Construct and weld a Blunt Head on various sizes of pipe.
6. Construct and weld an Orange Peel Head on various sizes of pipe.
7. Construct and weld Concentric and Eccentric reducers.
8. Construct and weld Vent Hood – "V" Shape and "T" Shape.
9. Construct and weld rolling and combination offsets on pipe.