

## **ENER-112 INTRODUCTION TO THE WELLHEAD .5 CREDITS**

### **SYLLABUS**

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#### **CATALOG DESCRIPTION**

Course presents basic principles of wellbore, wellhead, and Christmas tree design and operation for lease operators (aka MSOs, field technicians, pumpers). Instruction provides students with standard terminology to promote effective communication regarding maintenance issues and potential malfunctions. By understanding and identifying these designs and functions, students will be able to perform basic troubleshooting.

Prerequisites: Must have completed 80% of ENGY Certificate requirements

Semester Offered: Spring, Summer, Fall

#### ***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. Explain the basic purpose, function, and operation of the wellhead.

2. Identify the major components of the wellhead.
3. Explain wellbore designs, including surface pipe, intermediate and production casing, and tubing installed
4. Correctly label wellbore schematic diagrams.
5. Explain the difference between threaded & flanged wellheads.