ENER 214- Why We Use Compression

.5 CREDITS

SYLLABUS

CATALOG DESCRIPTION

An introduction to how compression was used to develop gas fields from the end user back to the wellhead. Program shows multiple types of compressor skids and how to perform basic checks prior to startup and during normal runtimes. This course is not designed to replace specific company procedures or policies.

Prerequisites: None

Semester Offered: All

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. Identify the compressors used in the gathering system.
2. Identify the primary components of a wellhead compressor skid and their functions.
3. Identify the common types of wellhead compressors.
4. Understand how compression impacts artificial lift efficiency.
5. Explain why louver adjustments on coolers are critical for efficient compressor operations.
6. Explain why a reciprocating compressor would be utilized vs. a rotary screw or integral.
7. Describe what steps would be followed prior to a compressor startup.
8. Explain how a wellhead compressor impacts gas lift, plunger lift and pumping unit operations.
9. Demonstrate an understanding of wellhead compression strategies.