



ENER 215- Advanced Separator

.5 CREDITS

SYLLABUS

CATALOG DESCRIPTION

Course presents basic principles of improving operational efficiency by focusing on Two-stage Three-phase separators and the LPUD, understanding the flow through each and learning how the valves and controllers function as a system. Students will gain an understanding of how control systems function and how to test them. The course also focuses on winterization techniques used to ensure operational efficiency during winter operations.

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. Discuss how separator control systems function and how to test them.
2. Discuss the pressure flow through a two-stage three-phase separator.
3. Describe the process for purging a two-stage three-phase separator.
4. Complete a worksheet demonstrating an understanding of troubleshooting thought processes for the control system.
5. Describe winterization prevention measures taken to protect surface equipment during winter operations.
6. Perform Vi calculations of a rotary compressor.