



## SYLLABUS

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### CATALOG DESCRIPTION

This course introduces students to the basic concepts of natural gas compressor valves and how to operate them according to different manufactures. Basic compressor valve operation; how to use valves for optimization; includes repair and troubleshooting.

1.

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 basic parts of the compressor valve.
2. Discover how different types of compressor valves work.
3. Develop knowledge in optimizing compressor valves to improve thru-put.
4. Develop compressor valve rebuilding skills.
  1. Determine suction and discharge valve leakages before shutdown to improve efficiencies.
  2. Troubleshoot abnormal situations that occur in compressor valves.
  3. Develop optimization skills to improve efficiencies of reciprocating compressors.
  4. Understand volumetric efficiencies associated with compressor valves.
  5. Learn to read pressure volume traces of reciprocating compressors as it relates to compressor valves.