

## SYLLABUS

**COURSE # AND TITLE** \_COMP230 Nat Gas Comp Theroy\_ **# OF CREDITS** \_\_3\_\_

**CATALOG DESCRIPTION:** The study of Basic Compressor Theory. Students will gain techniques, skills and procedures to appropriately recognize the principles of compression. Safety will be strictly enforced.

**Semester Offered:** Fall, Spring and Summer

**Prerequisites:** SAFE139 & PLACEMENT INTO MATH 113, ENGL 111, RDNG 113 excluding LSOP

**Requirements for Course Challenge:** Pass course exam with a "C" or better

*Common Student Learning Outcomes*

*Upon successful completion of San Juan College programs and degrees, the student will....*

<i>Learn</i>	<i>Students will actively and independently acquire, apply and adapt skills and knowledge to develop expertise and a broader understanding of the world as lifelong learners.</i>
<i>Think</i>	<i>Students will think analytically and creatively to explore ideas, make connections, draw conclusions, and solve problems.</i>
<i>Communicate</i>	<i>Students will exchange ideas and information with clarity and originality in multiple contexts.</i>
<i>Integrate</i>	<i>Students will demonstrate proficiency in the use of technologies in the broadest sense related to their field of study.</i>
<i>Act</i>	<i>Students will act purposefully, reflectively, and respectfully in diverse and complex environments.</i>

### GENERAL LEARNING OBJECTIVES

1. Identify equipment as to manufacture, model and serial number
2. Correctly identify compressor components
3. Gain knowledge of basic compression terms
4. Perform gas compression calculations; adjust unit to optimize production and economy

### SPECIFIC LEARNING OUTCOMES

Upon successful completion of the course, the student will be able to ...

1. Diagnose no compression malfunctions
2. Diagnose vibration problems as to cause
3. Adjust compressor pockets for proper operation with regard to pressure, flow and horsepower parameters
4. Diagnose, remove and replace pressure relief and blow down valves as needed
5. Calculate rod loads
6. Identify rod reversal
7. Identify compression ratios and gas flows
8. Understand gasket materials and their uses
9. Read and understand compressor curves

**Syllabus developed by** \_Randy R Randall and Linda J Martinez\_ **Date:** \_\_\_February 15, 2006\_\_\_

**Syllabus reviewed by** \_\_\_\_\_ **Date:** \_\_\_\_\_

**A current syllabus must be on file in the dean's office for every course being taught during a given semester.**