

IPOP-2480 Gas Processing and Petroleum Refining

SYLLABUS

CATALOG DESCRIPTION

A study of the major processes used in the gas processing industry. Included are amine sweetening, cryogenic liquids extraction, refrigeration, absorption, dehydration, sulfur recovery, compression, liquids handling, storage and transportation. Petroleum refining topics include physical and chemical properties of petroleum products, introduction to major refining processes, and operational technology for refining processes.

Prerequisites: IPOP-2450, IPOP-2460, IPOP-2470

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. Student will be able to summarize how oil and gas is found, how a well is drilled and completed, and how surface production equipment is used to produce separate products.
2. Student will be able to use proper hydrocarbon nomenclature to name basic oil and gas components.

3. Student will be able to describe the basic principles and equipment used in gas processing including glycol dehydration and amine sweetening.
4. Student will be able to explain the basic principles and equipment used in cryogenic plants.
5. Student will be able to explain the basic principles and equipment used in refineries.