

IPOP 2480 Gas Processing & Petroleum Ref section name section credit hours Credits Syllabus

Course Information

Meeting times and location: section meeting_times section location

Catalog description: Students will study 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 and the major regulatory programs that impact the gas processing industry. Petroleum Refining topics include physical and chemical properties of petroleum products, introduction to major modern refining processes, and operational technology for refining processes.

Prerequisites: IPOP-245, IPOP-246, IPOP-247.

Terms offered: Fall and Spring

Section-specific Course Description:

Course Level Objectives

- 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.

Required Texts and/or Materials

Principles of Gas Processing Booklet, Amine Sweetening Unit Operation Booklet, Glycol Dehydration Unit Operation Booklet, Cryogenic Process Principles Booklet.

Required Technology and Software

- Canvas
- Chrome, Safari, or Firefox

Technical Support

Technical support is available through the San Juan College Help Desk 24/7/365. The help desk can be reached at 505-566-3266 or by creating a ticket at <u>San Juan College</u> <u>Help Desk</u>.

For tickets and password reset: San Juan College Help Desk

For Canvas support information: Canvas Support

Accessibility/Privacy Policies for all Technology Tools Used

Accessibility/Privacy Policies for all Technology Tools Used

Course Requirements

Students will do the following activities:

1. Participation and Attendance Policy - 25%

Much of the learning occurs in the classroom setting and cannot be made up by only reading the textbook. Therefore, class attendance and participation are essential to your learning so attendance will be taken. IF YOU HAVE MORE THAN 4 ABSENCES, YOU MAY AUTOMATICIALLY FAIL THE CLASS. Class attendance is 25% of the grade, included in this

is punctuality and class participation. Points will be taken off for tardiness, leaving early and not participating in class activities.

2. Chapter Review Quizzes - 10%

After each chapter in the textbook, students will be required to complete some review questions. These questions should be completed before the chapter is discussed in class.

3. Sectional Exams -15%

After a certain amount of material is covered, a written exam will be administered through

CANVAS. These tests cover material in your textbook, Chapter Review assignments, PowerPoints and possibly Plant & Lab exercises you've completed.

4. Plant and Labs – 25%

Skill Checks are performance checks to assist you in learning new skills and knowledge. A number of the skill checks have self-evaluations (answers) that will be given to you once you have completed the Skill Check.

5. Computer Based Training (CBTs) - 15%

Follow the schedule on the computer based training record. After completing the given CBT, you will be required to complete the POST TEST. CBT videos, booklets and Post Test will all be administered through CANVAS. CBT post tests are used to determine your grade for this portion of the class.

6. Final Exam – 10%

The final exam will be comprehensive covering all the material presented in this class

7. Make-Up Test Policy

A penalty can be accessed for taking tests late if the instructor wasn't given prior notification.

8. Students must wear safety glasses and hard-toed shoes when working in the Process and Water labs.

9. Portfolio

Students will be required to maintain a portfolio throughout the IPOP program. The portfolio will consist of a notebook containing key lessons or skills completed while going through the program. These lessons or skills include: PFD drawings of each of the modules, hands-on competencies requiring you to start-up, shutdown and take a set of readings for each module, hands-on performance of each of the analytical test done in the water lab and other key assignments. In order to progress to the next semester, you must successfully pass the items required for the present semester based on a Pass/Fail evaluation of each item. Students are required to maintain the portfolio, turning them in at the end of each semester for review and given back to you at the start of the next semester.

COVID Safe Practices for Being on Campus

Masks / cloth face coverings must be worn while on campus in accordance with the New Mexico public health order. If you feel that you cannot wear a mask due to health complications, please contact Disabilities Services:

disabilityservices@sanjuancollege.edu or call (505) 566-3271. Hand sanitizer stations are at all building entrances, please "wash in, wash out"--clean your hands when you enter and before you leave. Classrooms and labs have been arranged to allow for social distancing; please respect your classmates and instructors by staying 6 feet away from everyone. You will be expected to disinfect your table or area prior to class and after class, cleaning products will be provided for this purpose. Check with your instructor for specific policies for their course. Please do not congregate in hallways or common areas, instead utilize our beautiful outside spaces and weather to visit with your friends and colleagues from a safe distance.

If you have been in contact with anyone who has tested positive for COVID-19, has symptoms, or is waiting on test results, contact your instructor and DO NOT come to class. If you have tested positive, have symptoms or are waiting on test results, contact your instructor and DO NOT come to class. Your health care provider or the assigned contact tracer will let you know when it is safe for you to be around others.

Student Support

Student Services and Support

The Student Support webpage provides information on counseling, tutoring, technical support, and many other support services available to San Juan College students.

Student Support

Academic Support

Academic Support webpage provides information on academic advising, the library, Testing Center, and the honors program.

Academic Support

Participation and Attendance Policy

You are required to log in to CANVAS on a regular schedule and complete the class reading material and take the quizzes, tests, exams and final by the time the class closes (see schedule).

Other Classroom Policies and Expectations

The following information also applies to your work in this class

1. Academic Accommodations—American with Disabilities Act (ADA)

If you believe you need academic accommodations due to physical or learning disabilities, you are encouraged to inform me as soon as possible. If you have special needs for campus emergency situations, please inform me immediately. You can also contact the college's disability advisor in the Advising/Counseling Center at 566-3271. The counselor can work with you in verifying your disabilities and developing accommodation strategies.

2. The Family Educational Rights and Privacy Act (FERPA)

Your personal information and grade are confidential. Aside from routine reporting to the college required for this course, I will not share such information with anyone unless I have your permission.

3. Academic Honesty Rules

San Juan College expects all students to adhere to the Academic Honesty Rules as posted online: . These are the official guidelines for all classes at San Juan College (July 2006).

4. Student Conduct Statement

College is preparation for professional opportunities, and professional conduct is expected in courses, including online classes, as well as any written communications, and interactions with members of the college community. As part of our learning community, students are expected to interact and communicate in a mature, respectful, thoughtful, and supportive manner. Students who demonstrate disrespectful, hostile, belittling, bullying or other disruptive behavior will be subject to potential consequences and possible dismissal from the college. The college will take appropriate action when students demonstrate threatening behavior (to others or self). Students should refer to the Code of Conduct in the Student Handbook for additional information.

5. Student Safety

Keeping students safe is a priority, and part of that is ensuring that we have the ability to communicate emergency messages – whether for school closures due to weather or for more or urgent situations. Rave is San Juan College's emergency messaging system. Through your SJC student email, you will automatically receive email messages, however, it is also vital that you receive text messages. In order to receive the messages, you must register with Rave. This is a simple process and can be done at www.sanjuancollege.edu/campusalertsLinks to an external site.. When registering, please make sure that your mobile status is "confirmed."

The Department of Public Safety is available 24 hours per day. In an emergency, they can be accessed by calling 215-3091 or 566-3333.

In the event of an emergency, a Rave message will be sent, and depending on the situation, you will be instructed to do one of the following:

- Evacuate the building
- Shelter in place (Campus doors are locked, and operations continue as normal. During this situation, no one other than law enforcement is allowed in or out of the campus.)
- Lockdown (Campus doors are locked. All operations cease, and you should take cover in your immediate area. No one other than law enforcement is allowed in or out of the campus.)
- 6. Drop for Non-Attendance and/or Non-Participation

Class Attendance and Participation Expectation:

Face-to-Face – Students are expected to attend and participate in class regularly. Any student missing more than 10% of consecutive class time, (For example, in a regular 15-week class that meets twice a week, this equates to the student missing 3 consecutive classes) without consultation with the instructor may be considered as having abandoned the course.

On-line – Students are expected to participate regularly and submit all course assignments, based on the course guide definition. A student who does not submit any assignments during a consecutive 10% of the course (1.5 weeks of a 15-week semester) without consulting the instructor, may be considered as having abandoned the course. Logging in does not meet the attendance standard.

Competency-Based Education Classes – Students are expected to have regular and substantive interactions with their instructor and to actively work on course content. A student who has not submitted coursework, nor had substantive interactions with the instructor over a consecutive 10% of the term, without the instructor's prior approval, will be considered to have abandoned the competency progression. Last date of attendance will be recorded as the last date that coursework was submitted or that the student met with the instructor. For on-line learners, logging in does not meet the attendance standard.

Failure to Meet Class Participation Expectation:

Students who fail to meet participation expectations will have their last date of attendance recorded. This date will be used to recalculate any financial aid received/veteran's benefits received, and the student may be required to repay the institution/government. If the student does not drop the course, an 'X' grade will be recorded. An 'X' grade impacts the grade point average the same as an 'F'.

7. Grading Policies

Incomplete: Incomplete Grade Assignment

(http://catalog.sanjuancollege.edu/content.php?catoid=6&navoid=264#GradesLinks to an external site.)

The grade of I (Incomplete) is given for passing work that could not be completed during the semester because of circumstances beyond the student's control. Ordinarily, the assignment of an I is given by the course instructor at the time final grades are due.

In no case is an I grade to be used to avoid assignment of D or F grades for marginal or failing work or to require a student to enroll in the class the next semester because work was not completed on time. Circumstances warranting the issuance of an I grade must be beyond the student's control and must be documented on the appropriate form prior to approval.

I grades can be removed only during the subsequent 16 weeks from the end of term, or within the time limit set by the instructor. Removal of an I is accomplished by completing the work in a manner acceptable to the instructor. Re-enrollment in the course under the repeat option does not remove the prior grade of I. Students should not re-enroll for the course. An I not made up within 16 weeks or within the time limit set by the instructor will change to an F grade thereafter and cannot be changed by work completion.

8. Grade Appeals:

The policy for grade appeals is in the Academic Catalog. (http://catalog.sanjuancollege.edu/content.php?catoid=6&navoid=264#Grade

Canvas Participation and Expectations

Log in to CANVAS should be done by the schedule outline, couple of times per week, to prevent getting behind and not being able to complete the class requirements by Closure of the class.

Instructor Response Time

Students and instructor will communicate in this blended class through email (college and canvas), phone, office visits, class and laboratory sessions. I will make every effort to respond to questions and assignments requiring feedback within 24 hours.

Course Time Commitment

Depending on your reading and comprehension abilities you should be able to read the material, review it and complete appropriate quizzes, tests and exams in 9-12 hours per week.

Grading

Attendance/Participation 25% Chapter Review Quizzes 10% Sectional Exams 15% Plant and Lab 25%

CBT Post Tests 15%

Final Exam 10%

A 93-100

B 85-92

C 76-84

D 69-75

F 68 or below

Key Dates to Remember

Full Academic Calendar

Course Schedule

Instructor to post schedule each semester.

College Policies

The following information also applies to your work in this class. If you have special needs for campus emergency situations, please inform me immediately.

1. Academic Accommodations - American with Disabilities Act (ADA)

If you believe you need academic accommodations due to physical or learning disabilities, you are encouraged to inform them as soon as possible. The coordinator can work with you in verifying your disabilities and developing accommodation strategies. Please go to <u>Disability Services Office</u>, click the button for "Request for Services" and complete all the steps.

You can also contact the college's disability coordinator in the Advising/Counseling Center at 566-3271 or disabilityservices@sanjuancollege.edu. More information is available on the website listed above.

2. The Family Educational Rights and Privacy Act (FERPA)

Your personal information and grade are confidential. Aside from routine reporting to the college required for this course, I will not share such information with anyone unless I have your permission.

3. Academic Honesty Rules

San Juan College expects all students to adhere to the Academic Honesty Rules as

posted online. These are the official guidelines for all classes at San Juan College (July 2006).

4. Student Conduct Statement

College is preparation for professional opportunities, and professional conduct is expected in courses, including online classes, as well as any written communications, and interactions with members of the college community. As part of our learning community, students are expected to interact and communicate in a mature, respectful, thoughtful, and supportive manner. Students who demonstrate disrespectful, hostile, belittling, bullying or other disruptive behavior will be subject to potential consequences and possible dismissal from the college. The college will take appropriate action when students demonstrate threatening behavior (to others or self). Students should refer to the Code of Conduct in the Student Handbook for additional information.

5. Student Safety

Keeping students safe is a priority, and part of that is ensuring that we have the ability to communicate emergency messages – whether for school closures due to weather or for more or urgent situations. Rave is San Juan College's emergency messaging system. Through your SJC student email, you will automatically receive email messages, however, it is also vital that you receive text messages. In order to receive the messages, you must register in a simple process with <u>Rave</u>. When registering, please make sure that your mobile status is "confirmed."

The Department of Public Safety is available 24 hours per day. In an emergency, they can be accessed by calling 215-3091 or 566-3333.

In the event of an emergency, a Rave message will be sent, and depending on the situation, you will be instructed to do one of the following:

- Evacuate the building
- Shelter in place (Campus doors are locked, and operations continue as normal. During this situation, no one other than law enforcement is allowed in or out of the campus.)
- Lockdown (Campus doors are locked. All operations cease, and you should take cover in your immediate area. No one other than law enforcement is allowed in or out of the campus.

6. Non-Discrimination, Sexual Harassment, and Retaliation.

San Juan College does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, genetic, veteran's status, or on the basis of any other category protected under federal, state and local laws. If you have experienced sexual harassment, sexual assault, or any other form of protected class discrimination, we encourage you to make a report. If you report to a faculty member, she/he/they are obligated by policy to share knowledge, notice, and/or reports of harassment, discrimination, and/or retaliation with the Title IX Coordinator. These disclosures include but are not

limited to reports of sexual assault, dating/domestic violence, and stalking. You may also make a confidential report to a SJC Counselor. Please refer to San Juan College's <u>Title IX</u> site for further details.

San Juan College's Title IX Coordinator is Stacey Allen, Assistant Director of Human Resources/Equity, Diversity, and Inclusion Officer. The office is located at the Educational Services Center Building, 2nd Floor, Human Resources, Room 4243 at (505) 566-3515 or <u>allens@sanjuancollege.edu</u>.

7. Drop for Non-Attendance and/or Non-Participation

Class Attendance and Participation Expectation:

<u>Face-to-Face</u> -- Students are expected to attend and participate in class regularly. Any student missing more than 10% of consecutive class time, (For example, in a regular 15-week class that meets twice a week, this equates to the student missing 3 consecutive classes) without consultation with the instructor may be considered as having abandoned the course.

<u>On-line</u> -- Students are expected to participate regularly and submit all course assignments, based on the course guide definition. A student who does not submit any assignments during a consecutive 10% of the course (1.5 weeks of a 15-week semester) without consulting the instructor, may be considered as having abandoned the course. Logging in does not meet the attendance standard.

<u>Competency-Based Education Classes</u> -- Students are expected to have regular and substantive interactions with their instructor and to actively work on course content. A student who has not submitted coursework, nor had substantive interactions with the instructor over a consecutive 10% of the term, without the instructor's prior approval, will be considered to have abandoned the competency progression. Last date of attendance will be recorded as the last date that coursework was submitted or that the student met with the instructor. For on-line learners, logging in does not meet the attendance standard.

8. Failure to Meet Class Participation Expectation:

Students who fail to meet participation expectations will have their last date of attendance recorded. This date will be used to recalculate any financial aid received/veteran's benefits received, and the student may be required to repay the institution/government. If the student does not drop the course, an 'X' grade

will be recorded. An 'X' grade impacts the grade point average the same as an 'F'.

9. Grading Policies

Incomplete: Incomplete Grade Assignment (Incomplete Grades Information)

The grade of I (Incomplete) is given for passing work that could not be completed during the semester because of circumstances beyond the student's control. Ordinarily, the assignment of an I is given by the course instructor at the time final grades are due

In no case is an I grade to be used to avoid assignment of D or F grades for marginal or failing work or to require a student to enroll in the class the next semester because work was not completed on time. Circumstances warranting the issuance of an I grade must be beyond the student's control and must be documented on the appropriate form prior to approval.

I grades can be removed only during the subsequent 16 weeks from the end of term, or within the time limit set by the instructor. Removal of an I is accomplished by completing the work in a manner acceptable to the instructor. Re-enrollment in the course under the repeat option does not remove the prior grade of I. Students should not re-enroll for the course. An I not made up within 16 weeks or within the time limit set by the instructor will change to an F grade thereafter and cannot be changed by work completion.

10. Grade Appeals

The policy for grade appeals is in the Academic Catalog.(Grade Appeal Policy)

Student Handbook

The Student Handbook provides information on Student support, student organizations, and San Juan College policies.

Student Handbook

Program Handbook

Not applicable.