



## **IPOP 2480 Gas Processing & Petroleum Refining 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

## 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 AUTOMATICALLY 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 assessed 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.

## 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/campusalerts](http://www.sanjuancollege.edu/campusalerts)Links 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>)

## 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

## 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.

## 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.

## 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).

## Instructor Response Times & Regular Interaction Expectations

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.

## Key Dates to Remember

[Full Academic Calendar](#)

## Course Schedule

Instructor to post schedule each semester.

## Program Handbook

Not applicable.

## 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 [San Juan College Help Desk](#).

For password reset and and Canvas support, visit the [Student Technology Guide](#) website.

## Accessibility/Privacy Policies for all Technology Tools Used

[Accessibility/Privacy Policies for all Technology Tools Used](#)

## Student Support

At San Juan College, we are committed to supporting your academic success and overall well-being. We recognize that college life can be challenging and stressful, impacting both learning and personal health. We are here to help you succeed.

### **Academic Support and Resources**

We provide a range of academic support services to help you stay on track on your educational journey. Free resources include tutoring, computer loans, life skills workshops, and so much more. Visit the [Academic Support and Resources](#) webpage to learn more about support and resources available through Academic Advising, the Tutoring Center, the Student Resource Center (formerly Student Achievement Center) and the Testing Center.

### **Student Support and Resources**

If you or someone you know could benefit from counseling, accessibility services, career exploration, veteran transitional assistance, or any of our other support services, visit the [Student Support and Resources](#) webpage where you'll find detailed information about various resources available to you as an SJC student.

We encourage you to take advantage of these free resources to enhance your college experience and ensure your success.

## College Policies and Resources for Current Students

The [Student Handbook](#) provides information on student support, student organizations, and student conduct policies at San Juan College.

The San Juan College catalog outlines the [Academic Policies](#) students need to know.



# Healthy and Safe Practices for Being on Campus

We want a healthy and safe campus for students, faculty, staff, and guests.

## **Contagious diseases and your responsibility:**

If you have COVID-19 symptoms, fever, flu or even the common cold, you should stay home. Do not come to campus if you are feeling sick. Contact your instructor about missing class (and review your instructor's policies on missed or late work). Being sick does not necessarily excuse you from completing your work on time.

## **Safety on campus and your responsibility:**

If you are on campus and experience or witness an emergency, call 9-1-1 first and then the Department of Public Safety at 505-566-3333 (or just 3333 if calling from a campus phone).

When you are on campus, be aware of your surroundings. If you need an escort to your vehicle, call 505-566-4444 (DPS non-emergency line) or 505-215-3091 (officer on duty line).

The College will send information for campus emergencies through SJC AlertAware, email and the webpage. Stay informed and stay safe.

# Inclement Weather Information

Students will receive notification of class delays and cancellations due to inclement weather via the SJC AlertAware and SJC student email. Face-to-face classes will not meet in person; however, students are advised to check with instructors about alternative meeting options, as some may choose to meet via zoom. Hybrid classes will meet as scheduled via zoom. For questions regarding your class delay or cancelation, please contact your instructor.

# Online Course Fee

Online Courses - San Juan College requires all online courses to include some form of assessment to demonstrate the mastery of course objectives. This could include exams, capstone projects, e-portfolios, presentations, final papers or other appropriate assessments. The use of a proctoring platform, plagiarism detection software or other method to ensure that assessments are completed by the enrolled student is required.

A course fee of \$5.00 is assessed for all online courses at San Juan College to cover the cost of the above services. Students who are required to take a proctored exam and choose to use a physical

testing center outside the SJC Testing Center or SJC Disability Services will be responsible for the cost of using that center.