



ENGY 1260 Natural Gas Compression section name section credit hours Credits
Syllabus

Course Information

Meeting times and location: section meeting_times section location

Catalog description: This course is an introduction to natural gas compressors, their design, use and operation. How compressors work, their components, design considerations and the basic gas laws used in compression will be stressed. The student will gain a basic knowledge of the compression process and the environmental hazards and safety associated with the operation of compressors.

Prerequisites: course prereqs

Terms offered: All Semesters

Section-specific Course Description:

Course Level Objectives

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

1. Explain how compressors work and why we use compressors in the oil and gas industry, the major parts of a gas compressor package, the different drivers used for compressor packages, how a 2 stroke and a 4 stroke engine differ and how the driver is connected to the compressor.
2. Demonstrate why the different gas laws and the ideal gas law are important for compression and gas standards.
3. Demonstrate the basics of how a gas compressor works, the compression cycle, volumetric efficiency, rod loads and determine factors influencing the design of compressor units.
4. Identify and explain the different applications of compressor units in the oil and gas industry and the different types of compressor units and the considerations needed in selecting the proper compressor for the job.

5. Identify and explain the major components and function of those components and some of the considerations in the design of individual compressor components and valves.
6. Explain the function of the control panel, safety shutdowns and auxiliary equipment used on a compressor skid and the need for capacity control on a compressor skid and how it effects the compressor and it's function.
7. Name the reasons and the desired functions of installing compressors on individual wells in the field and identify the different types of compressors used on the wellhead application in the field and why we use them.
8. Demonstrate how the daily operation effects the compressor package and the importance of maintenance and accurate record keeping on a daily, weekly and monthly basis on compressor packages and why it is essential in the efficient operation of compressors.
9. Demonstrate awareness of some of the safety hazards associated with a compressor installation and the mitigation of those hazards and the potential environmental hazards and how they are regulated.

Required Texts and/or Materials

Reciprocating Gas Compressors

0-88698-119-0

Petroleum Extension Service Division of Continuing Education the University of Texas at Austin
1982

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 [San Juan College Help Desk](#).

For tickets and password reset: [San Juan College Help Desk](#)

For Canvas support information: [Canvas Support](#)

Accessibility/Privacy Policies for all Technology Tools Used

Scroll to the middle of the linked page to view

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

Course Requirements

Students will do the following activities:

- Complete the SJC Academic Honesty Rules assignment. (The link to this rule can be found below under College Policies, Academic Honesty Rules.)
- Set up and activate San Juan College E-Mail Account.

COVID Safe Practices for Being on Campus

COVID Safe Practices for Being on Campus

What to do if you have COVID-19 symptoms, are exposed or test positive:

- Do NOT come to campus, but continue to monitor your symptoms and stay home if you test positive for COVID-19 or when you are not feeling well.
- Contact your instructor.

There is no longer a requirement to complete the intake form if you test positive for COVID-19, experience symptoms, or come in contact with a confirmed positive COVID-19 case.

San Juan College continues to follow the NM Department of Health guidelines with regard to COVID-19. These guidelines can be reviewed by visiting their website at: <https://cv.nmhealth.org/>.

Additional SJC COVID-19 information and resources can be found on the [Coronavirus](#) webpage.

Student Support

Student Services and Support

At San Juan College, we support your academic success and overall health. We know that students often experience a range of stressors that can impact learning and well-being. If you, or someone you know is experiencing mental health concerns, or could benefit from effective academic strategies, there are free and confidential resources available to enrolled students through the Counseling Center. To learn more, visit the [Counseling Center website](#) or call 505-566-3404.

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

This course is self-paced and does not require an instructor's permission to submit assignments. Students have 8 weeks to complete all assignments and take the final exam. There will be 1-2 lessons per week that will be available until Sunday at 11:59 PM each week except for the last week of class and the class will typically end on Friday at 11:59 PM. Students must complete each lesson in that week long session in order to get credit for that lesson(s). There are no make-up provisions for any reason excepting a failure of the online system that the course is presented in. (Extraordinary circumstances may warrant extending due dates only with prior notice). Attendance will be assessed by how many times per week a student logs into the class. 2-3 times per week will constitute 100% attendance. All other frequencies will be assessed by the ability to meet deadlines and the student's knowledge of announcements and correspondence sent during the week. Students who fail to log in the 1st week of class will be automatically dropped from the class. Students who do not complete assignments and quizzes on an ongoing basis may also be deemed for non- participation.

Inclement Weather Information

Students will receive notification of class delays and cancellations due to inclement weather via the SJC SunsAlert 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. If you have not already done so, [Sign up for SJC SunsAlert](#) to stay up to date on weather alerts.

Other Classroom Policies and Expectations

Students who have any issues with course content or grades issued to them should first attempt to resolve any issues with the course instructor. San Juan College does have a formal grade appeal process. If a student wishes to challenge a grade issued to them, they should first contact the course instructor for a copy of the appropriate forms.

Canvas Participation and Expectations

Canvas will document the date, time and how long a student spends on each lesson and assignment. As per the attendance policy, it is expected that a student log in 2-3 times a week

Instructor Response Times & Regular Interaction Expectations

The instructor will log in to the course 2-3 times daily except for weekends. Usually log in and grading will be once in the AM and 1-2 times in the PM. Any correspondence from the student to the instructor will be answered within 1 hour except for weekends. The instructor will log in each day and do grading and answering correspondence 1 time per day on weekends.

Course Time Commitment

The course is an introductory course so the time spent on each lesson will vary with the student's familiarity with the material. The expectation is that the student will spend 2-4 hours per week reviewing the material and completing the assignments and quizzes. It is expected that a student will spend an additional 2-4 hours doing research for assignments and subjects.

Grading

Final grades are calculated based on the following...

Category	Weight
Quizzes	25
Exams	25

Category	Weight
Homework	20
Papers	15
Attendance	15

Key Dates to Remember

[Full Academic Calendar](#)

Course Schedule

Module 1 01/19/2021 to 01/24/2021

Module 2 01/25/2021 to 01/31/2021

Module 3 02/01/2021 to 02/07/2021

Module 4 02/08/2021 to 02/14/2021

Module 5 02/15/2021 to 02/21/2021

Module 6 02/22/2021 to 02/28/2021

Module 7 03/01/2021 to 03/07/2021

Module 8 03/08/2021 to 03/12/2021

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 other disabilities, you are encouraged to contact Accessibility Services as soon as possible. The coordinator can work

with you to determine eligibility and appropriate accommodations strategies. Please go to your MY SJC portal page, click on Accessibility Services, and complete all the steps.

You can also contact the college's Accessibility Services Coordinator at (505) 566-3271 or accessibilityservices@sanjuancollege.edu. More information is available on the website listed above.

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

Refer to the catalog for information regarding [FERPA](#).

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.

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 to you. SJC SunsAlert is San Juan College's Emergency Notification System that will provide you with real-time information about campus closures, extreme weather, and other emergencies through your San Juan College email, text alerts, and phone calls. Should an emergency occur prior to activating your SJC SunsAlert, you will only receive messages through your San Juan College email. To receive a phone call and text alert, you must activate your SJC SunsAlert account and register your phone number. To activate your SJC SunsAlert account, you will need to download the Everbridge App in the App Store or Google Play. Once the app is downloaded follow these steps:

- Open the app

- Click on “Find an organization or subscription” button
- In the search box, either type in San Juan College or 87402
- Click on “SJC SunsAlert”
- Sign on using your SJC email and password
- Once you sign in, you will want to click on “Manage My Profile”
- Click on “edit”
- Include your preferred communication methods.
- Enter your cell phone number in the personal text msg field to ensure you receive text messages.
- Confirm all information (phone number & email) is correct and up to date.
- If you need help with the app, please call John Myers at 505-566-4224 or Kenny Hibner at 505-566-3050.

In the event of an emergency, an SJC SunsAlert 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.)

The Department of Public Safety (DPS) is available 24 hours per day. In an emergency, you can reach DPS staff by calling (505) 566-4444.

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 [Title IX](#) 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 allens@sanjuancollege.edu.

7. 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'.

8. 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.

9. 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

There is no separate handbook for this course.

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.