



## **PACT 180 Brake Systems section name section credit hours Credits Syllabus**

### Course Information

**Meeting times and location:** section meeting\_times section location

**Catalog description:** A study of the theory and diagnostic repair procedures of Honda and Acura disc and drum brake systems, Anti-Lock Brake System, Anti-Slip Systems and Traction control systems and include theory, diagnosis and repair procedures as outlined in factory service information. Electric power steering motors, sensors and circuitry will be included. Instruction will be given on brake machining equipment, hydraulic systems and component replacement on traditional and anti-lock brake systems. Safety will be emphasized.

**Prerequisites:** PACT-120 PACT-190

**Terms offered:** Spring Only

**Section-specific Course Description:**

### Course Level Objectives

#### ***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.

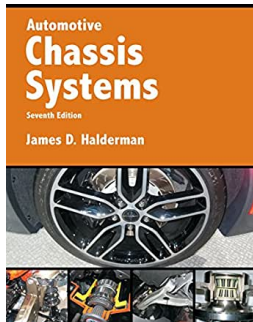
### ***Information Literacy***

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.

## Required Texts and/or Materials



### **Automotive Chassis Systems**

978-0-406445-1

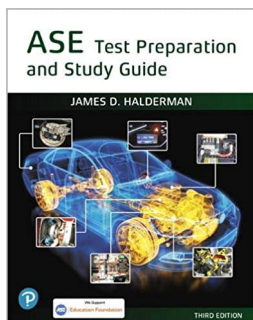
James D. Halderman

Pearson

2017

7th

This is the REQUIRED textbook for this course.



### **ASE Test Preparation and Study Guide**

978-0-13-523286-6

James D. Halderman

Pearson

2020

3rd

## 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

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

## Course Requirements

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

1. Demonstrate safe manufacturers' techniques for automotive brake service.
2. Rebuild wheel cylinders.
3. Overhaul disc brake calipers.
4. Overhaul master cylinders.
5. Replace and repair brake lines and hoses.
6. Bleed a brake system.
7. Flush a brake system.
8. Balance a pressure differential switch.
9. Remove and replace brake shoes.
10. Remove and replace disc brake pads.
11. Adjust, service, and test parking brake system.
12. Machine drums and rotors to manufacturers' standards.
13. Replace parking brake cables.
14. Diagnose brake malfunctions such as squeak, low pedal, hard pedal, and spongy pedal.
15. Test and inspect brake components for leakage, wear and proper operation.
16. Perform the manufacturers' brake performance test.
17. Remove and replace master cylinders.
18. Remove and replace a hydro-boost power brake unit.
19. Test an anti-lock brake system using manufacturers' approved processes..
20. Test rotor parallelism.
21. Test rotor run-out.
22. Torque wheel lug nuts to proper specification.
23. Check and service brake fluid level utilizing the manufacturers' recommended process.

## 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](mailto: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

Participation and Attendance Policy

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 consu

ltation with the instructor may be considered as having abandoned the course.

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'.

If you miss more than 10% of your classes you will receive an "X" grade.

% Classes Missed Attendance	How your grade is affected
0%- 10%	OK
11% - 100%	X

An 8 week 5 days per week class has 40 days. 4 days = 10%

A night class will only have 16 days. 1.6 days = 20%

Also remember that late arrivals are counted absent

## Other Classroom Policies and Expectations

1. The shop contains many pieces of equipment that can seriously injure a student if all safety

precautions are not observed.

\*Therefore, it is imperative that NO physical contact between students be allowed in the lab or

department spaces. \*Conversations that are distracting from the learning process in the classroom

and the lab are not permitted.

2. The department office is for the use of the instructors and staff. Students will NOT enter the department or instructor's office without permission.

3. You are responsible for your own tools. Keep up with them--no one else will. Personal tools will be kept in toolboxes. Lockers are available at no charge, students will provide locks

for their lockers and store items at their own risk.

4. You are responsible for wearing approved safety glasses/goggles at all times in the shop

or at a job location. Safety glasses must have clear, non-tinted, non-mirrored or shaded lenses.

Prescription glasses MUST have plastic lenses and side shields

5. You are responsible for wearing dealer uniform shirts and appropriate pants to class.

6. You are responsible for wearing leather shoes which are strong, sturdy, and appropriate

to the trade at all times while in the shop or at a job location. Leather, canvas, nylon athletic

shoes or sandals are not acceptable.

7. Always ask the instructor for permission to leave the class.

8. No books other than textbooks are permitted in the classroom or lab. (NO

MAGAZINES OR NEWSPAPERS.)

9. No food, drink, smoking, or tobacco products are allowed in the classroom or the lab. Beginning January 1, 2020, NO tobacco products are allowed on San Juan College campus.

10. Inappropriate language will not be tolerated at any time on the premises.

11. Cell phones, pagers, and entertainment devices MAY NOT be used during class or

shop time!

13. The use of personal or school provided computers for any activity other than those

assigned by your instructor is not allowed during class or shop time

## Canvas Participation and Expectations

You will need to log in to Canvas at least once daily. Assignments, work submitted, grades, and important announcements about the course will be put on Canvas.

## Instructor Response Time

All submitted e-mails, texts, and phone calls will be answered within a 24-hour period. Preferred method of contact is email.

## Course Time Commitment

You will spend 3 ½ hours on campus daily for this course. However, your time commitment should not end

when you leave campus. Plan on spending up to 6 - 9 hours per week reading and doing homework for

this course.

## Grading

Below is the grading rubric for final grade calculation:

Category	Weight
Quizzes, Attendance, and Weekly Assignments	40%
Shop Work	30%
Final Assessments	30%
TOTAL	100%



Note: Attendance is used to calculate part of your grade. Students missing more than 10% of the

scheduled days will receive an " X" grade and no credit.

Percentage Letter Grade

90 - 100	A
80-89	B
70-79	C
60-69	D
59 or lower	F

## Key Dates to Remember

[Full Academic Calendar](#)

## Course Schedule

Unit 1: Introduction to Brake Systems

Unit 2: Hydraulic Systems

Unit 3: Service and Parking Brake Systems

Unit 4: ABS, VSC, and TCS

Final exam

## 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 [Disability Services Office](#), 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](mailto: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 [Rave](#). 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 [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](mailto: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.

#### **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](#)