



AUTE 115 Manual Dr Train & Transaxles Section Name Section Credit Hours Credits **Syllabus**

Course Information

Meeting times and location: section meeting_times section location

Catalog description: The theory and repair of manual transmission, differentials, clutches, transaxles and drive axles will be covered. Diagnosis and troubleshooting will be stressed. Safety is emphasized.

Prerequisites: AUTE-116 and AUTE-117 AUTE-113

Terms offered: Spring Only

Section-specific Course Description:

Course Level Objectives

Upon successful completion of this course, the student will be able to diagnose and repair manual transmissions and transaxles, driveshafts, universal and CV joints, and transfer cases. Students will gain a working knowledge of manual drivetrain systems.

Required Texts and/or Materials

2-YEAR ACCESS - ASE AUTOMOTIVE SUITE EDUHUB - READY CONTENTms

9781645645580

JOHANSON

G_W

Available in the SJC Bookstore.

This Electronic version is the preferred option because it contains all of the materials for all of the SJC AUTE courses.

Required Technology and Software

- Canvas
- Chrome, Safari, or Firefox

Course Requirements

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

1. Demonstrate safe techniques for working on standard transmissions, as well as transaxles.
2. Remove and replace universal joints.
3. Overhaul rear differentials.
4. Replace axle bearings and seals.
5. Diagnose differential failures such as leaks, gear howl, and bearing noises.
6. Replace wheel studs.
7. Disassemble front drive axles.
8. Diagnose transfer cases malfunctions.
9. Diagnose and overhaul manually shifted transmissions and transaxles.
10. Remove and replace clutch and pressure plate assemblies.
11. Remove and replace clutch forks, pilot bearings, and clutch release bearings.
12. Adjust clutch linkage and cables.
13. Diagnose clutch problems.
14. Measure flywheel run-out.
15. Remove and replace manually shifted transmissions.
16. Adjust manual transmission shift linkage or cables
17. Overhaul various manual transmissions.

Other Classroom Policies and Expectations

Dress code will be enforced. Dress code consists the following:

- PPE (Personal Protection Equipment). This includes leather, safety sole shoes and clear safety glasses. When working with other types of shop equipment such as welders or high voltage circuitry, wear the required safety equipment.
- Long pants and a shirt
- Long hair should be up and all loose, hanging jewelry should be tucked away or removed

Students will do the following activities:

- Work safely in an automotive repair facility.
- Work collaboratively with other technicians.

- Use technology to access service literature.
- Perform routine scheduled maintenance.
- Perform Level 1 automotive tasks such as LOF, interior repairs, tire service, and vehicle inspections
- Write repair orders and repair estimates.

Grading

Grades are calculated using this guideline

Category	Weight
Quizzes and homework	40%
Shop Work	30%
Final Assessments	30%

The percentage – to – letter grade scale:

Percentage	Letter Grade
90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

Course Time Commitment

Besides the 15 hours a week in the lab and classroom, you should allow at least 6-12 hours per week for study and outside assignments.

Canvas Participation and Expectations

Students should spend at least 6-9 hours of outside study for this course. Students are expected to check Canvas at least once a day.

Participation and Attendance Policy

Because the class emphasizes on hands-on lab activities, consistent attendance is required. Students that are not in class when attendance is taken will be counted absent. Personal errands should be scheduled for times that will not conflict with class schedule. Students will not be given make-up work.

Federal and State education guidelines have stated that students missing 10% or more of their classes should not be eligible to pass that class. The SJC Automotive Department uses the attendance rubric below when calculating your attendance.

If you miss 10% of your classes you will receive an "X" grade. Refer to the following chart.

% CLASSES MISSED	ATTENDANCE
0%	OK
10%	X
20%	X
30%	X
40%	X
50%	X
60% - 100%	X

Understand that this is based on percentage of the total number of days available in the course based on the official SJC course calendar. For example:

If your course schedule shows that a course runs 20 days (4 weeks), 2 missed days would count as missing 10 % of the available days and would result in an Incomplete (I). One day would count as 5% of the available days.

So each day in a 20 day course counts as 5%. Each day in a 40 day course counts as 2.5% (rounds to 3%). Each day in an 80 day course counts as 1.25% (rounds to 1%) etc.

Also remember that late arrivals will be counted absent.

Instructor Response Times & Regular Interaction Expectations

I will respond to e-mail and text messages within 24 hours.

Key Dates to Remember

[Full Academic Calendar](#)

Course Schedule

Unit 1: Introduction to Manual Transmissions

Unit 2: Clutch Service

Unit 3: Manual Transaxle Service and Diagnostics

Unit 4: Drive Shaft and Wheel Bearing Service

Unit 5: Drive Axle and Transfer Case Service

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 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.