Automotive Steering and Suspension Systems; AUMT 1316.31201  
Ed Hester  
ehester@dcccd.edu  
972-860-8196  
MTWRF 8:00am-12:45pm  
H123 7:00am-8:00am

**Course Description**
A study of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific (2 Lec., 4 Lab.)

**Required Materials Including Textbooks (include ISBN)**
*Note: A minimum of 9 hours per week should be devoted to course material outside of class time*

*Automotive Suspension Systems 6th ed. Author: Don Knowles; Thomson Delmar Publishing (Classroom Manual and Laboratory Manual).*
ISBN: 9781285438108

**Course Prerequisites**
AUMT 1307

**Disclaimer**
The instructor reserves the right to amend this syllabus as necessary.

**Texas Core Objectives for Student Learning**
Students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. In this course, the following skills are in focus.

1. **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
5. **Personal Responsibility** - to include the ability to connect choices, actions and consequences to ethical decision-making
6. **Social Responsibility**: to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
Student Learning Outcomes

Unit I Steering and Suspension Parts and Functions
In order for an automotive technician to properly service the suspension and steering of a vehicle, he/she must know the function and location of each part concerning the suspension and steering systems.

Unit II Steering Systems
To properly diagnose and service the steering system of an automobile, the technician must be knowledgeable as to the different types of steering systems and how each part works in conjunction with the entire system.

Unit III Tires and Wheels
The automotive technician must understand how tires and wheels can affect the overall handling of the automobile. How tire and wheel checking procedures are accomplished and corrective measures are taken are covered in this unit.

Unit IV Wheel Balancing
The automotive technician must possess the capabilities of balancing tires in order for the vehicle to handle properly on the highway. Out of balance tires can cause damage to the suspension parts and the tires of the vehicle. This unit will instruct you on the proper balancing procedures used when balancing tires.

Unit V Alignment
The automotive technician must have a thorough understanding of steering geometry and how it affects the handling and stability of the vehicles when it is moving down the highway.

Learning Objectives
1. The student will read assignments from the prescribed text.
2. The student will attend lectures and demonstrations by the instructor.
3. The student will view tapes.
4. The student will participate both individually and with their work group in hands-on projects assigned by the instructor.
5. The student will follow proper safety procedures when completing the above assigned tasks.
6. The student will score a minimum passing grade on both oral and written tests.

Exams and Assignments
Midterm and Final Exam will be administered. Quizzes as instructor deems necessary. Homework assigned as needed. Research paper will be assigned.

Evaluation Procedures
Midterm 25%
Final Exam 25%
Laboratory/Class Participation 50%

Grading Scale

<table>
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<tr>
<th>Score Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
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<tr>
<td>70-79</td>
<td>C</td>
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<tr>
<td>65-69</td>
<td>D</td>
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<tr>
<td>64 and Below</td>
<td>F</td>
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Stop Before you Drop

For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop.

You may drop no more than six courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions.

Remember that once you have accumulated six non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: http://www.dcccd.edu/Why/Reg/Registration/Pages/default.aspx

Withdrawal Policy 12/5/14

If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by 12/11/15. Failure to do so will result in your receiving a performance grade, usually an “F.” If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a “W” (Withdraw) in each class dropped. See institutional policies for additional information on withdrawals.

Attendance Policy

3 tardies = 1 absence
3 absences = lowers final grade 1 letter grade

Emergency Closings

Information will be posted on Cedar Valley College homepage. News outlets will be informed. Students can call 972-860-8200. Students are encouraged to sign up for emergency alerts.

Classroom Policies

You are expected to demonstrate acceptable work habits while attending class. This means:
1. Be on time for every class and lab.
2. Dress neatly and safely.
3. Use safe work habits in the lab.
4. Notify instructors immediately in case of an unavoidable absence or tardiness. Do not wait until the next day or next class.
5. Behave courteously toward your instructors and classmates.

Because these are behaviors expected of you in the workplace, you will be graded on them.

Course Outline

For maximum success in this course you should spend a minimum of 9 hours per week working on course material.

<table>
<thead>
<tr>
<th>Week</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Lecture/Lab</td>
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<tr>
<td>Week 2</td>
<td>Midterm Exam</td>
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<tr>
<td>Week 3</td>
<td>Lecture/Lab</td>
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<tr>
<td>Week 4</td>
<td>Final Exam</td>
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</tbody>
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QUALITY ENHANCEMENT PLAN

Cedar Valley College's Quality Enhancement Plan is designed to improve student learning in mathematics. Read more about our QEP at:

http://www.cedarvalleycollege.edu/QEP/default.aspx

INSTITUTIONAL POLICIES

Academic Advising

Academic Advising is a collaborative educational process whereby students and their advisors are partners in meeting the students' academic, personal, and career goals. This partnership is a process that is built over the student’s entire educational career at Cedar Valley College.

Educational planning is available to all students. First time in college students must meet with academic advisors prior to enrolling in classes; however, continuing students may choose to see faculty advisors, faculty counselors, and/or program coordinators after classes begin. All parties have clear responsibilities for ensuring a successful partnership. For more information, you may access:

https://www.cedarvalleycollege.edu/FutureStudents/StudentServices/AcademicAdvising/Pictures/AdvisingSyllabus.pdf

Academic Honesty

Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.
ADA Statement
If you are a student with a disability and/or special needs who requires accommodations, please contact the college Disability Services Office at 972-860-8119.

Emergency Alert
Sign up for DCCCD Emergency Alerts to receive a text-message, e-mail and/or phone call when there is an unscheduled evacuation or closure of a DCCCD campus or office because of weather closures, utility outages, police or other emergencies. Subscribing is free, but standard text message charges from your cell phone provider will apply. Please refer to: http://www.dcccd.edu/SS/OnlineSvs/EmergAlerts/Pages/default.aspx

Financial Aid
Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

Health Center Services
Basic first aid for minor cuts, scrapes, insect stings, and heat, etc.
- Over-the-counter medications for headaches, fever, seasonal allergies, and colds
- Over-the-counter medications for mild allergic reactions
- Emergency sanitary pads
- Blood Pressure check
- Coordination with outside health agencies such as Carter Blood Care; Dallas County Health Dept. (HIV/STD testing--free, twice a semester); UT Southwestern mobile mammography; Immunizations once a month for children <19 y.o. from the DCDHHS; Agape Massage; and Employee Wellness Screening
- Rest area for stress relief, migraine headaches, post seizure activity
- AED (Automatic External Defibrillator) for CPR
- Confidential "talks"
- Assists with health related club activities when asked and time permits

Honors Credit Availability (if applicable)
You can earn Honors Credit in this course that will show the completion of an Honors Course on your transcript. Honors credit is important in transfer evaluation for graduation with both Associates and Bachelor degrees with honors. To gain Honors credit for this course you will need to:

1. Demonstrate advanced writing skills through synthesis and original thought in expanded writing projects, research
papers, and critical essays. This will entail a minimum of ten pages of writing. You will be asked to read primary sources readings besides the textbook

2. Participate in an outside class activity by attending a lecture, exhibit or program outside of the class activities

3. You will practice your oral presentation skills with a 10-minute presentation to the class about a topic that you have researched

To qualify for Honors credit, you must sign an Honors Contract at the beginning of the semester. Meet with me to design your program and complete the contract form by (Insert appropriate dates for current semester) in order to meet the (Insert appropriate dates for current semester) deadline for submission of Honors Contracts for approval. Finally, you must earn an A or B in the course in order to receive Honors Credit.

Religious Holidays
Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.

Repeating this Course
Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class may not be repeated for the third or subsequent time without paying the additional tuition. Third attempts include courses taken at any of the Dallas County Community Colleges since the fall 2002 semester. More information is available at: http://www.dcccd.edu/PC/Cost/3rdCrseAttmpt/Pages/default.aspx

Student Code of Conduct
As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog. More information is available at: https://www1.dcccd.edu/catalog/ss/code.cfm?loc=CVC

Tutoring Services
Tutor located in Automotive Department. Tutoring schedule will be handed out to the students on a weekly basis.
CEDAR VALLEY COLLEGE
FEE SCHEDULE FOR ALL NON-AUTOMOTIVE STUDENT OR CEDAR VALLEY VEHICLES

ONLY VEHICLE REPAIRS THAT PERTAIN TO CLASSES BEING TAUGHT IN EACH SEMESTER MAY BE WORKED ON IN THE LAB IN THE SAME SEMESTER. VEHICLES BELONGING TO AUTOMOTIVE STUDENTS HAVE PRIORITY OVER ALL OTHER WORK. ONLY VEHICLES BELONGING TO AUTOMOTIVE STUDENTS OR CEDAR VALLEY COLLEGE WILL NOT BE SUBJECT TO A LAB FEE.

TO PROVE OWNERSHIP OF A VEHICLE, THERE MUST BE PROOF OF LIABILITY INSURANCE ON THE VEHICLE BEFORE IT IS BROUGHT INTO THE LAB FOR REPAIRS. THERE WILL BE NO EXCEPTIONS. THIS PROOF MUST BE VERIFIED BY THE INSTRUCTOR OR LAB ASSISTANT.

THE LAB FEES LISTED BELOW ARE A FEE ONLY AND NOT A PART OF LABOR CHARGE. THESE FEES COVER LAB USAGE AND MATERIALS ONLY. ALL PARTS WILL BE FURNISHED BY THE OWNER OF THE VEHICLE AND THERE IS NO LABOR CHARGE ON ANY WORK DONE IN THE CEDAR VALLEY COLLEGE AUTOMOTIVE CLASSES OR LAB.

ALL STUDENTS MUST SIGN A WAIVER OF LIABILITY BEFORE THEY WORK ON THEIR VEHICLE. ALL OTHERS MUST SIGN A WAIVER OF LIABILITY AND PAY THEIR NECESSARY LAB FEE BEFORE THE STUDENTS WILL BE ALLOWED TO BRING THE VEHICLE INTO THE LAB FOR REPAIRS.

THESE LAB FEES WILL BE PAID AT THE COLLEGE BUSINESS OFFICE AND WILL BE USED FOR NEEDED SHOP SUPPLIES.

THERE WILL BE NO EXCEPTIONS TO THESE FEES OR POLICIES

THANK YOU FOR YOUR UNDERSTANDING AND HELPING US TO IMPROVE OUR AUTOMOTIVE CAREER TECHNICIAN TRAINING PROGRAM AT CEDAR VALLEY COLLEGE.

VEHICLE OWNER LIABILITY RELEASE

The only purpose for performing work on non-CVC vehicles is to provide practical work experience for the students of these technical occupational programs. Only that work, which fits into the instructional program, as determined by the instructors of these classes will be accepted. It is to be understood that all work will be performed by students.

No time limit is guaranteed within which repairs will be completed

There will be no labor charges or parts charges for any work performed. The only charge will be a lab fee. The college is not responsible for any personal property left in the vehicle by the owner.

Vehicle tag number________________________ Signature________________________
Vehicle make________________________ Date:________________________
Vehicle color________________________ Lab fee:________________________
Assigned key number_____________________ Contact number_____________________
Customer complaint________________________________________________________
___________________________________________________________________________