AUMT1305.2204 and 2205
Introduction to Automotive Technology

Course Description

An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities, and automotive maintenance. May be taught manufacturer specific.

Course Focus

This course includes a substantial amount of hands-on learning activities, which cannot be rescheduled. Regular attendance is mandatory for successful completion of the course.

Text and References

Automotive Technology Principles, Diagnosis and Service 4th Edition: James D. Halderman
Automotive Laboratory Exercises: Donald W. Jones
Selected Manufacturer Specific Materials/Publications
Selected Internet and Online Resources (Melior Instructor ID: 634ih2b8um)
Class Website - http://myautoclass.com

Course Goals

The following list of course goals will be addressed in the course. Goals marked with a * must be completed to pass the course.

1. explain general automotive shop safety procedures
2. explain automotive hazardous materials safety procedures
3. demonstrate safe vehicle lifting procedure*
4. complete online Pollution Prevention Training course with a score of 80% or greater*
5. complete online Mechanical Safety Training course with a score of 80% or greater*
6. complete Automotive Service online course with a score of 70% or greater*
7. complete General Chemistry - Automotive online course with a score of 70% or greater*
8. explain automotive service facility organization
9. define technician responsibilities
10. explain warranty policies
11. write vehicle repair order
12. estimate automotive repair labor
13. identify common automotive tools and equipment
14. explain automotive hand/power tool usage
15. demonstrate proper soldering techniques
16. explain common automotive measuring systems
17. demonstrate precision measuring tool usage
18. explain fasteners gaskets/seals and sealant usage
19. identify automotive service data sources
20. explain service manual organization
21. interpret vehicle identification number information
22. locate vehicle service information
23. interpret service manual diagnostic diagrams/charts
24. explain common vehicle maintenance schedules
25. inspect vehicle fluid levels/leaks
26. inspect vehicle belts/hoses
27. lubricate vehicle suspension
28. replace engine oil/filter*
29. rotate tires
30. balance tires*
31. define engine system component terms
32. explain engine rating and identification systems
33. define emission control system component terms
34. define electrical terms
35. explain electrical principles
36. measure voltage
37. measure current
38. measure resistance
39. define electrical system component terms
40. test automotive battery condition
41. define accessory system component terms
42. define drive train system component terms
43. define body/chassis system component terms

Student Learning Outcomes

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

- Apply safety standards when working in an automotive service facility
- Explain service facility operational procedures and technician responsibilities
- Demonstrate proficiency in the use of common automotive hand tools and measuring equipment
- Demonstrate proficiency in locating, identifying and following procedures in online service information resources
- Perform a multipoint vehicle condition inspection and recommend necessary service
- Perform routine vehicle maintenance service procedures in accordance with industry guidelines

Course Evaluation

Final Grade is composed of:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Attendance and Participation</td>
<td>20%</td>
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<tr>
<td>Lab Grade</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes and Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm Exam (written and/or practical)</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam (written and/or practical)</td>
<td>20%</td>
</tr>
</tbody>
</table>

Final grade will be of letter type:

- A = 90 to 100 points
- B = 80 to 89 points
- C = 70 to 79 points
- F = Below 70 points
- I = Incomplete
Financial Aid Statement

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.

Receiving Your Grades

End-of-semester grades will not be mailed to you by the college. To receive your grades you have two options: through the Internet or through the Telephone Touch-Tone System. Depending on your choice use the following directions:

Internet Access to Grades
1. Go to the Dallas County Community College website (http://www.dcccd.edu)
2. Next, click on eConnect at the top of the page.
3. Now click on Credit student menu
4. Next click on My Personal Information (this will expand the menu)
5. Now click on My Grades
6. Enter your seven digit student ID (not your social security #)
7. Enter your password or if it is your first time to use the system enter your date of birth. (Example: Feb 16, 1965 021665)
8. Now select the term you wish to review
9. Next, select the grade type (CR-Credit Grades)
10. Click on submit, your grade(s) should then be displayed on your screen

Telephone Access to Grades
1. Dial 972-613-1818
2. Press 2 for grades
3. Press 1 – wait for directions to enter your seven digit Student ID number
4. Enter PIN (Six digit -- Example: Date of birth Feb 16, 1965 021665)
5. Select correct option for the semester grades you are inquiring about

Stop Before You Drop

For students who enrolled in college level courses for the first time beginning 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 6 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 6 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: https://www1.dcccd.edu/coursedrops
## AUMT 1305.2204 Summer 2012 Schedule

Textbook: Automotive Technology Principles, Diagnosis and Service 4th Edition

<table>
<thead>
<tr>
<th>Date</th>
<th>Reading and Assignments</th>
<th>Lab/Lecture</th>
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</thead>
<tbody>
<tr>
<td>Wednesday 6/6</td>
<td>Grey Lab Manual Pages Chapters 1 through 7</td>
<td>Program Introduction</td>
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<tr>
<td></td>
<td></td>
<td>Shop Safety</td>
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<tr>
<td>Thursday 6/7</td>
<td><strong>SP2 Pollution Prevention Training Course due Monday at 10:00 AM</strong></td>
<td>Automotive Industry</td>
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<td>Tool Vendor Presentations</td>
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<tr>
<td>Monday 6/11</td>
<td>Chapters 8 through 15</td>
<td>Shop Tour</td>
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<td></td>
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<td>Shop Equipment Demonstrations</td>
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<td></td>
<td>Vehicle Lifting Lab</td>
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<tr>
<td>Tuesday 6/12</td>
<td><strong>SP2 Mechanical Safety Training Course due Wednesday at 10:00 AM</strong></td>
<td>Tools and Equipment</td>
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<td></td>
<td>Precision Measuring</td>
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<td></td>
<td>Fasteners and Sealants</td>
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<tr>
<td>Wednesday 6/13</td>
<td><strong>Online Quiz 1 due Thursday at 10:00 AM</strong></td>
<td>Tools Lab</td>
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<td>Measuring Lab</td>
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<td>Fasteners and Sealants Lab</td>
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<tr>
<td>Thursday 6/14</td>
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<td>Service Information Lab</td>
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<td>Review</td>
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<tr>
<td>Monday 6/18</td>
<td>Chapters 16, 17, 20 and 22</td>
<td><strong>Midterm Exam</strong></td>
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<tr>
<td>Tuesday 6/19</td>
<td><strong>Online Quiz 2 due Wednesday at 10:00 AM</strong></td>
<td>Vehicle Maintenance/Service</td>
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<td>Vehicle Inspection Lab</td>
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<tr>
<td>Wednesday 6/20</td>
<td></td>
<td>Vehicle Maintenance/Service Lab</td>
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<tr>
<td>Thursday 6/21</td>
<td><strong>Today's Class Automotive Service Course due Monday at 10:00 AM</strong></td>
<td>Vehicle Maintenance/Service</td>
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<tr>
<td>Monday 6/25</td>
<td>Yellow Lab Manual Pages Chapters 18 and 19</td>
<td>Vehicle Maintenance/Service Lab</td>
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<tr>
<td>Tuesday 6/26</td>
<td><strong>Today's Class Automotive General Chemistry Course due Wednesday at 10:00 AM</strong></td>
<td>Vehicle Maintenance/Service Lab</td>
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<td>Wednesday 6/27</td>
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<td>Engine Systems Review</td>
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<tr>
<td>Thursday 6/28</td>
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<td><strong>Final Exam</strong></td>
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