



**AUTT2010  
COURSE SYLLABUS  
Lecture/ Lab  
Fall Semester 2015**

Semester: 201516 Fall 2015  
Course Title: Automotive Engine Repair  
Course Number: AUTT 2010  
Credit Hours/ Minutes: 6/8750  
Class Location: Room # SECCA/Automotive Lab  
Class Meets: TWR 5:30PM-8:45PM  
CRN: 20153

Instructor: Rooster Harrell  
Office Hours: MTWR 3:00PM-5:00PM  
Office Location: SECCA/ Auto Lab/ room AT-1  
Email Address: jharrell@southeasterntech.edu  
Phone: (912)538-3155  
Fax Number: (912) 538-3106

**REQUIRED TEXT: Automotive Technology; Principles, Diagnosis, and Service Fourth Edition by James D. Halderman, published by Pearson**



HALDERMAN **AUTOMOTIVE TECHNOLOGY - PRINCIPLES, DIAGNOSIS, AND SERVICE**

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**REQUIRED SUPPLIES & SOFTWARE:** Required items include; Automotive Technology Book, Automotive Technology lab manual, Safety Glasses, 2" Binder notebook for lab sheets, homework and handouts. Writing tools required (pens, pencils). Writing tools will not be loaned out!

**Dress Requirements:** Approved Uniform; STC Automotive Technology shirts (bookstore). Club t-shirts will be allowed, but not every day. Shirts must be tucked in pants at all time. Work pants, jeans, or work type shorts. Work boots are highly recommended, but may wear tennis shoes, **ABSOLUTELY NO OPEN TOED SHOES** (flip flops, bedroom slippers etc.) Dress code will be enforced and repeated violations of this and all rules could result in removal from the course. .

Recommended, but not required; Nitrile Gloves, Mechanics Gloves.

**COURSE DESCRIPTION:** This course introduces the student to automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques for both 2 cycle and 4 cycle internal combustion engines. Topics include general engine diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.

**MAJOR COURSE COMPETENCIES:** General Engine Diagnosis; Removal and Installation, Cylinder Head and Valve Train Diagnosis and Repair, Engine Block Assembly, Diagnosis and Repair, Lubrication and Cooling Systems Diagnosis and Repair

**PRE-requisite(S):** AUTT 1010, AUTT 1020

**CO-requisites:** All Required

**COURSE OUTLINE:**

- I. General Engine Diagnosis: Removal and Reinstallation
- II. Cylinder Head and Valve Train Diagnosis and Repair
- III. Engine Block Assembly Diagnosis & Repair
- IV. Lubrication and Cooling Systems Diagnosis & Repair

**GENERAL EDUCATION CORE COMPETENCIES:** STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.
4. The ability to utilize basic computer skills.

All students pursuing a degree, a diploma, or a Technical Certificate of Credit with a General Education component will be required to pass the General Education Competency Exams prior to graduation.

**STUDENT REQUIREMENTS:** Assignments must be completed on the specified date. All work must be turned in at the beginning of class on the specified due dates. If a student is absent from class, all work must be turned in at the beginning of class the next day upon returning to class. If this is not done, then a grade of zero will be given on the work. Failure to take tests on the scheduled day will result in a grade of zero for the test not taken. The makeup test must be taken the next day upon returning to class. The zero assigned for the missed test will be replaced with the grade the student makes on the makeup exam. **STUDENTS WILL ONLY BE ALLOWED TO TAKE ONE MAKEUP TEST DURING THE SEMESTER!!!!**

**STC ATTENDANCE POLICY:** It is essential that educational programs maintain requirements and standards necessary for successful employment of its graduates in business and industry. In view of the intensive nature of the educational programs, it is necessary for every student to be present and on time every day for all classes. Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course a student must attend at least 90% of the scheduled instructional time. All work missed due to tardiness or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time as noted on each syllabus will receive a "W" for the course if removed from the course on or before midterm. After the semester midterm, any student who has maintained a passing grade within a course will receive a 'WP' for the course when attending less than the required scheduled instructional time as stated on each course syllabus. If, however, the student has not maintained a passing grade, he or she will receive a 'WF' for the course. Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course involved.

**TRADITIONAL ATTENDANCE ADDENDUM:** *AUTT 2010 Fall 2015 you are only allowed (3) absences for the semester.*

**SPECIFIC ABSENCES:** Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

**SPECIAL NEEDS:** Students with documented special needs may be provided with an individualized Instructional Plan with specifications for scheduled instructional time. It is the student's responsibility to inform the Special Needs Specialist as students and instructors are required to have documented evidence prior to receiving or allowing special accommodations. See the STC Catalog and Student Handbook, Student Affairs section for further information regarding special needs.

**SPECIAL NEEDS ADDENDUM:** Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Jan Brantley, Room 2105 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.

**MAKEUP GUIDELINES:** Assignments must be completed on the specified date. All work must be turned in at the beginning of class on the specified due dates. If a student is absent from class, all work must be turned in at the beginning of class the next day upon returning to class. If this is not done, then a grade of zero will be given on the work. Failure to take tests on the scheduled day will result in a grade of zero for the test not taken. The makeup test must be taken the next day upon returning to class. The zero assigned for the missed test will be

replaced with the grade the student makes on the makeup exam. **STUDENTS WILL ONLY BE ALLOWED TO TAKE ONE MAKEUP TEST DURING THE SEMESTER!!!!**

**ACADEMIC DISHONESTY POLICY:** The STC Academic Dishonesty Policy states *All forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline.* The policy can also be found in the *STC Catalog and Student Handbook.*

**Procedure for Academic Misconduct**

The procedure for dealing with academic misconduct and dishonesty is as follows:

**--First Offense--**

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

**--Second Offense--**

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

**--Third Offense--**

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

**STATEMENT OF NON-DISCRIMINATION:** Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era or citizenship status, (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

**ACCESS TO TECHNOLOGY:** For information regarding Angel, the Information Delivery System (IDS), Student Owl Mail, and Banner Web, please see the IT Department link on STC's website at <http://www.southeasterntech.edu>.

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**GRADING POLICY**

Exams	30%
Lab Activities	30%
Assignments	20%
Finals	20%
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	100%

**GRADING SCALE**

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

**CSG GUARANTEE/WARRANTY**

**STATEMENT:** *The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

**AUTT 2010 – AUTOMOTIVE ENGINE REPAIR  
SPRING SEMESTER 2015**

Date	Chapter / Lesson	Content	Assignments & Tests	*Comp. Area
<b>WEEK 1</b>				
AUG 18	CH 18-19, 24-28, 38	General Engine Diagnosis; (R&R)	<ol style="list-style-type: none"> <li>1. Welcome &amp; explanation of course &amp; syllabus.</li> <li>2. Begin reading CH's 18-19, 24-28, 38</li> <li>3. Power Point/Lecture</li> <li>4. Homework Assignment CH's 18-19, 24-28, 38</li> <li>5. Answer Review questions and take Chapter quiz.</li> <li>6. Begin Lab manual assignments pgs. 76-78</li> <li>7. Weekly test and/or quizzes given at instructor's discretion.</li> </ol>	NATEF P1 1,2,a,b,c,d
<b>WEEK 2</b>				
AUG 25	CH 18-19, 24-28, 38	General Engine Diagnosis; (R&R)	<ol style="list-style-type: none"> <li>8. Continue reading CH's 18-19, 24-28, 38</li> <li>9. Power Point/Lecture</li> <li>10. Homework Assignment CH's 18-19, 24-28, 38</li> <li>11. Answer Review questions and take Chapter quiz.</li> <li>12. Continue Lab manual assignments 76-78</li> <li>13. Weekly test and/or quizzes given at instructor's</li> </ol>	NATEF P1 1,2,a,b,c,d
<b>WEEK 3</b>				
SEPT 1	CH 18-19, 24-28, 38	General Engine Diagnosis; (R&R)	<ol style="list-style-type: none"> <li>14. Continue reading CH's 18-19, 24-28, 38</li> <li>15. Power Point/Lecture</li> <li>16. Homework Assignment CH's 18-19, 24-28, 38</li> <li>17. Answer Review questions and take Chapter quiz.</li> <li>18. Continue Lab manual assignments 76-78</li> <li>19. Weekly test and/or quizzes given at instructor's</li> </ol>	NATEF P1 1,2,a,b,c,d
<b>WEEK 4</b>				
SEPT 8	CH 18-19, 24-28, 38	General Engine Diagnosis; (R&R)	<ol style="list-style-type: none"> <li>20. Continue reading CH's 18-19, 24-28, 38</li> <li>21. Power Point/Lecture</li> <li>22. Homework Assignment CH's 18-19, 24-28, 38</li> <li>23. Answer Review questions</li> </ol>	NATEF P1 1,2,a,b,c,d

			<p>and take Chapter quiz.</p> <p>24. Weekly test and/or quizzes given at instructor's</p> <p>25. Note Books, Home Work CH's 18-19, 24-28, 38 &amp; Lab Manual assignments pgs. 76-78 (DUE)</p> <p>26. TEST CH's 18-19,24-28,38</p> <p>27. Begin reading CH's 30-32</p>	
<b>WEEKS</b>				
SEPT 15	CH 30-32	Cylinder Head and Valve Train Diagnosis and Repair	<ol style="list-style-type: none"> <li>Continue Reading CH's 30-32</li> <li>Power Point/Lecture</li> <li>Homework Assignment CH's 30-32. Answer Review questions and take Chapter quiz.</li> <li>Begin Lab Assignment 79-99</li> <li>Weekly Test and/or quizzes given at instructors discretion</li> </ol>	NATEF P-1,P-3 1,5,6,a,b,c,d
<b>WEEK6</b>				
SEPT 22	CH 30-32	Cylinder Head and Valve Train Diagnosis and Repair	<ol style="list-style-type: none"> <li>Continue Reading CH's 30-32</li> <li>Power Point/Lecture</li> <li>Homework Assignment CH's 30-32. Answer Review questions and take Chapter quiz.</li> <li>Begin Lab Assignment 79-99</li> <li>Weekly Test and/or quizzes given at instructors discretion</li> </ol>	NATEF P-1,P-3 1,5,6,a,b,c,d
<b>WEEK 7</b>				
SEPT 29	CH 30-32	Cylinder Head and Valve Train Diagnosis and Repair	<ol style="list-style-type: none"> <li>Continue Reading CH's 30-32</li> <li>Power Point/Lecture</li> <li>Homework Assignment CH's 30-32. Answer Review questions and take Chapter quiz.</li> <li>Begin Lab Assignment 79-99</li> <li>Weekly Test and/or quizzes given at instructors discretion</li> </ol>	NATEF P-1,P-2, 1,2,3,4,5,6 ,a,b,c,d
<b>WEEK 8</b>				
OCT 6	CH 30-32	Cylinder Head and Valve Train Diagnosis and Repair	<ol style="list-style-type: none"> <li>Continue Reading CH's 30-32</li> <li>Power Point/Lecture</li> <li>Note Books, Home Work CH's 30-32 &amp; Lab Manual assignments pgs. 79-99 (DUE)</li> <li>TEST OVER CH's 30-32</li> <li>Begin Reading CH's 29, 33-37</li> </ol>	NATEF P-1,P-2, 1,2,3,4,5,6 ,a,b,c,d
<b>WEEK 9</b>				
OCT 13	CH 29, 33-37	Engine Block Assembly Diagnosis and Repair	<ol style="list-style-type: none"> <li>Continue Reading CH's 29, 33-37</li> <li>Power Point/Lecture</li> <li>Homework Assignment CH's 29, 33-37. Answer Review questions and take Chapter quiz.</li> <li>Begin Lab Assignment 11, 100-118</li> <li>Weekly Test and/or quizzes</li> </ol>	NATEF P-1, 1,2,3,4,5,6 ,a,b,c,d

			given at instructors discretion	
<b>WEEK 10</b>				
OCT 20	CH 29, 33-37	Engine Block Assembly Diagnosis and Repair	<ol style="list-style-type: none"> <li>6. Continue Reading CH's 29, 33-37</li> <li>7. Power Point/Lecture</li> <li>8. Homework Assignment CH's 29, 33-37. Answer Review questions and take Chapter quiz.</li> <li>9. Continue Lab Assignment 11, 100-118</li> <li>10. Weekly Test and/or quizzes Given at instructor's discretion.</li> </ol>	NATEF P-1, 1,2,3,4,5,6 ,a,b,c,d
<b>WEEK 11</b>				
OCT 27	CH 29, 33-37	Engine Block Assembly Diagnosis and Repair	<ol style="list-style-type: none"> <li>11. Continue Reading CH's 29, 33-37</li> <li>12. Power Point/Lecture</li> <li>13. Homework Assignment CH's 29, 33-37. Answer Review questions and take Chapter quiz.</li> <li>14. Continue Lab Assignment 11, 100-118</li> <li>15. Weekly Test and/or quizzes given at instructor's discretion.</li> </ol>	NATEF P-2, P- 2,1,2,3,4,5 ,6,a,b,c,d
<b>WEEK 12</b>				
NOV 3	CH 29, 33-37	Engine Block Assembly Diagnosis and Repair	<ol style="list-style-type: none"> <li>16. Continue Reading CH's 29, 33-37</li> <li>17. Power Point/Lecture</li> <li>18. Homework Assignment CH's 29, 33-37. Answer Review questions and take Chapter quiz.</li> <li>19. Note Books, Home Work CH's 29, 33-37 &amp; Lab Manual assignments pgs. 11, 100-118 (DUE)</li> <li>20. TEST OVER CH's 29, 33-37</li> <li>21. Begin Reading CH's 20-23</li> </ol>	NATEF P-2, 1,2,3,4,5,6 ,a,b,c,d
<b>WEEK 13</b>				
NOV 10	CH 20-23	Lubrication and Cooling Systems Diagnosis and Repair	<ol style="list-style-type: none"> <li>1. Continue reading CH's 20-23</li> <li>2. Power Point/Lecture</li> <li>3. Homework CH's 20-23. Answer Review questions and take Chapter quiz.</li> <li>4. Continue Lab Assignment 44-60</li> <li>5. Weekly Test and/or quizzes given at instructors discretion</li> </ol>	NATEF P-1, P-2, 1,2,3,4,5,6 ,a,b,c,d
<b>WEEK 14</b>				
NOV 17	CH 20-23	Lubrication and Cooling Systems Diagnosis and Repair	<ol style="list-style-type: none"> <li>1. Continue reading CH 20-23</li> <li>2. Power Point/Lecture</li> <li>3. Homework CH 20-23.</li> </ol>	NATEF P-1, P-2, P-3

			<p>Answer Review questions and take Chapter quiz.</p> <p>4. Continue Lab Assignment 44-60.</p> <p>5. Weekly Test and/or quizzes given at instructors discretion</p> <p>6. TEST OVER CH's 20-23</p> <p>7. Note Books, Home Work CH's 20-23 &amp; Lab Manual Assignments pgs. 44-60 (DUE)</p>	1,2,3,4,5,6 ,a,b,c,d
<b>WEEK 15</b>				
NOV 24		<b>FINALS</b>	1. ALL WORK DUE	NATEF P-1,P-2, P-3 1,2,3,4,5,6 ,a,b,c,d
<b>WEEK16</b>				
DEC 1		<b>FINALS</b>		NATEF P-1,P-2, P-3 1,2,3,4,5,6 ,a,b,c,d

**Lessons may be changed at instructor's discretion due to time constraints and other reasons beyond control.**

**\* Competency Areas:**

**Automotive Engine Repair Systems Competency Areas:**

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| <ol style="list-style-type: none"> <li>1. General Engine Diagnosis: Removal and Reinstallation</li> <li>2. Cylinder Head and Valve Train Diagnosis and Repair</li> </ol> | <ol style="list-style-type: none"> <li>3. Engine Block Assembly Diagnosis &amp; Repair</li> <li>4. Lubrication and Cooling Systems Diagnosis &amp; Repair</li> </ol> |
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**General Core Competency Areas:**

- a. The ability to utilize standard written English.
- b. The ability to solve practical mathematical problems.
- c. The ability to read, analyzes, and interprets information.
- d. The ability to utilize basic computer skills.

