



AUTT2020 COURSE SYLLABUS Lecture/ Lab Fall Semester 2014

Semester: 201512 Fall 2014
Course Title: Automotive Manual Drive Train and Axles
Course Number: AUTT2020
Credit Hours/ Minutes: 4/5050
Class Location: Room # SECCA/Automotive Lab
Class Meets: MT
CRN 40225

Instructor: James Harrell
Office Hours: MTW 4:30PM-6:00PM Thurs-1:00PM-6:00PM
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**

PEARSON

REQUIRED SUPPLIES & SOFTWARE: Required items include; Automotive Technology Book, Automotive Technology lab manual, Safety Glasses, 1” Binder notebook for lab sheets, and Approved Uniform, STC Automotive Technology Shirts. (Shirts can be purchased in the bookstore)
Recommended, but not required; Nitrile Gloves, Mechanics Gloves.

COURSE DESCRIPTION: This course introduces basics of rear-wheel drive, front wheel drive, and four-wheel drive, drive line related electronic controls. **MAJOR COURSE COMPETENCIES:**

PRE-requisite(S): none
CO-requisites: All Required

COURSE OUTLINE: General drive train Diagnosis, Clutch Diagnosis and Repair, Manual transmission/Transaxle Diagnosis and Repair, Drive Shaft and Half Shaft, Universal and Constant-Velocity (CV) Joint Diagnosis and Repair, Drive Axle Diagnosis and Repair, Four-Wheel/All-Wheel Drive Component Diagnosis and 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 worked 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: *AUTT2020 Spring 2016 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>.

T

GRADING POLICY

Exams 35%
 Lab Activities 30%
 Assignments 20%
 Finals 15%
 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 2020 – MANUAL DRIVE TRAIN AND AXLES
 SPRING SEMESTER 2016**

Date	Chapter / Lesson	Content	Assignments & Tests	*Comp. Area
------	------------------	---------	---------------------	-------------

WEEK 1

JAN 11/12	CH 121	CLUTCHES	<ol style="list-style-type: none"> Welcome & explanation of course & syllabus. Begin reading CH 121 Power Point/Lecture Homework Assignment CH 121 Answer Review questions and take Chapter quiz. Begin Lab manual assignments 121 Weekly test and/or quizzes given at instructor's discretion. 	NATEF P1,P2, 2,a,b,c,d
WEEK 2				
JAN 19	CH 121	CLUTHCES	<ol style="list-style-type: none"> Continue reading CH 121 Power Point/Lecture Continue Homework Assignment CH 121; Answer Review questions and take Chapter quiz. Continue Lab manual assignments CH 121 Weekly test and/or quizzes given at instructor's discretion. Home Work & Lab Manual assignments CH 121 (DUE) Test over CH 121 Begin Reading CH 122 	NATEF P1,P2, 2,a,b,c,d
WEEK 3				
JAN 25/26	CH 122	MANUAL TRANSMISSION/TRANSAXLE DIAGNOSIS AND REPAIR GENERAL DRIVETRAIN DIAGNOSIS	<ol style="list-style-type: none"> Continue reading CH 122 Power Point/Lecture Homework Assignment CH 122; Answer Review questions and take Chapter quiz. Begin Lab manual assignments CH 122 Weekly test and/or quizzes given at instructor's discretion. 	NATEF P1,P2,P3, 1,3,a,b,c,d
WEEK4				
FEB 1/2	CH 122	MANUAL TRANSMISSION/TRANSAXLE DIAGNOSIS AND REPAIR GENERAL DRIVETRAIN DIAGNOSIS	<ol style="list-style-type: none"> Continue reading CH 122 Power Point/Lecture Continue Homework Assignment CH 122; Answer Review questions and take Chapter quiz. Continue Lab manual assignments CH 122 Weekly test and/or quizzes given at instructor's discretion. 	NATEF P1,P2,P3, 1,3,a,b,c,d
WEEK5				
FEB 8/9	CH 122	MANUAL TRANSMISSION/TRANSAXLE DIAGNOSIS AND REPAIR GENERAL DRIVETRAIN DIAGNOSIS	<ol style="list-style-type: none"> Continue reading CH 122 Power Point/Lecture Continue Homework Assignment CH 122; Answer Review questions and take Chapter quiz. Continue Lab manual assignments CH 122 Weekly test and/or quizzes given at instructor's discretion. 	NATEF P1,P2,P3, 1,3,a,b,c,d
WEEK6				

FEB 15/16	CH 122	MANUAL TRANSMISSION/TRANSAXLE DIAGNOSIS AND REPAIR GENERAL DRIVETRAIN DIAGNOSIS	<ol style="list-style-type: none"> 6. Continue reading CH 122 7. Power Point/Lecture 8. Continue Homework Assignment CH 122; Answer Review questions and take Chapter quiz. 9. Continue Lab manual assignments CH 122 1. Weekly test and/or quizzes given at instructor's discretion <p>.Homework & Lab Assignments CH 122(DUE)</p> <ol style="list-style-type: none"> 2. Test Over CH 122 3. Begin Reading CH's 123/124 	NATEF P1,P2,P3, 1,3,a,b,c,d
WEEK 7				
FEB 22/23	CH 123/124	DRIVE SHAFT AND HALF SHAFT UNIVERSAL AND CV JOINT DIAGNOSIS AND REPAIR, and DIFFERENTIALS	<ol style="list-style-type: none"> 1. Continue Reading CH's 123/124 2. Power Point/Lecture 3. Homework Assignment CH's 123/124. Answer Review questions and take Chapter quiz. 4. Begin Lab Assignment 123/124 5. Weekly Test and/or quizzes given at instructors discretion 	NATEF P1,P2,P34 ,5, a,b,c,d
WEEK 8				
FEB 29/1	CH 123/124	DRIVE SHAFT AND HALF SHAFT UNIVERSAL AND CV JOINT DIAGNOSIS AND REPAIR, and DIFFERENTIALS	<ol style="list-style-type: none"> 1. Continue Reading CH's 123/124 2. Power Point/Lecture 3. Continue Homework Assignment CH's 123/124. Answer Review questions and take Chapter quiz. 4. Continue Lab Assignment 123/124 5. Weekly Test and/or quizzes given at instructors discretion 	NATEF P1,P2,P34 ,5, a,b,c,d
WEEK 9				
MAR 7/8	CH 123/124	DRIVE SHAFT AND HALF SHAFT UNIVERSAL AND CV JOINT DIAGNOSIS AND REPAIR, and DIFFERENTIALS	<ol style="list-style-type: none"> 1. Continue Reading CH's 123/124 2. Power Point/Lecture 3. Continue Homework Assignment CH's 123/124. Answer Review questions and take Chapter quiz. 4. Continue Lab Assignment 123/124 5. Weekly Test and/or quizzes given at instructors discretion 	NATEF P1,P2,P34 ,5, a,b,c,d d
WEEK 10				
MAR 14/15	CH 123/124	DRIVE SHAFT AND HALF SHAFT UNIVERSAL AND CV JOINT DIAGNOSIS AND REPAIR, and DIFFERENTIALS	<ol style="list-style-type: none"> 1. Continue Reading CH's 123/124 2. Power Point/Lecture 3. Continue Homework Assignment CH's 123/124. Answer Review questions and take Chapter quiz. 4. Continue Lab Assignment 123/124 5. Weekly Test and/or quizzes given at instructors discretion 	NATEF P1,P2,P34 ,5, a,b,c,d
WEEK 11				
MAR 21/22	CH 123/124	DRIVE SHAFT AND HALF SHAFT UNIVERSAL AND CV JOINT DIAGNOSIS AND REPAIR, and DIFFERENTIALS	<ol style="list-style-type: none"> 1. Continue Reading CH's 123/124 2. Power Point/Lecture 3. Continue Homework Assignment CH's 123/124. Answer Review 	NATEF P-2, P- 2,1,2,3,4,5 ,6,a,b,c,d

			questions and take Chapter quiz. 4. Continue Lab Assignment 123/124 5. Weekly Test and/or quizzes given at instructors discretion.	
WEEK 12				
APR 4/5	CH 123/124	DRIVE SHAFT AND HALF SHAFT UNIVERSAL AND CV JOINT DIAGNOSIS AND REPAIR, and DIFFERENTIALS	1. Continue reading CH 123/124 2. Power Point/Lecture 3. Continue Homework CH's 123/124. Answer Review questions and take Chapter quiz. 4. Continue Lab Assignment CH's 123/124 5. Weekly Test and/or quizzes given at instructors discretion 6. CH's 123/124 Homework and Lab Assignment (DUE) 7. Test CH's 123/124 8. Begin Reading CH 126	NATEF P-2, 1,2,3,4,5,6 ,a,b,c,d
WEEK 13				
APR 11/12	CH 126	FOUR-WHEEL DRIVE/ ALL-WHEEL DRIVE COMPONENT DIAGNOSIS AND REPAIR	1. Continue reading CH 126 2. Power Point/Lecture 3. Homework CH 126. Answer Review questions and take Chapter quiz. 4. Begin Lab Assignment CH 126 5. Weekly Test and/or quizzes given at instructors discretion	NATEF P-1, P-2, 1,2,3,4,5,6 ,a,b,c,d
WEEK 14				
APR 18/19	CH 126	FOUR-WHEEL DRIVE/ ALL-WHEEL DRIVE COMPONENT DIAGNOSIS AND REPAIR	1. Continue reading CH 126 2. Power Point/Lecture 3. Homework CH 126. Answer Review questions and take Chapter quiz. 4. Begin Lab Assignment CH 126. 5. Weekly Test and/or quizzes given at instructors discretion	NATEF P-1, P-2, P-3 1,2,3,4,5,6 ,a,b,c,d
WEEK 15				
APR 25/26	CH 126	FOUR-WHEEL DRIVE/ ALL-WHEEL DRIVE COMPONENT DIAGNOSIS AND REPAIR	1. Continue reading CH 126 2. Power Point/Lecture 3. Continue Homework CH 126. Answer Review questions and take Chapter quiz. 4. Continue Lab Assignment CH 126. Answer Review Questions and take Chapter Quizzes 5. Weekly Test and/or quizzes given at instructors discretion 6. CH 126 Homework and Lab Assignments (DUE) 7. Test CH 126	NATEF P-1,P-2, P-3 1,2,3,4,5,6 ,a,b,c,d
WEEK 16				

MAY 2		FINALS		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 Manual Drive Train and Axles System Competency Areas:

1. General Drive Train Diagnosis
2. Clutch Diagnosis and Repair
3. Manual Transmission/Transaxle Diagnosis & Repair
4. Drive Axle Diagnosis and Repair
5. Drive Shaft and Half Shaft, Universal and Constant Velocity (CV) Joint Diag. and Repair
6. Four-Wheel Drive/All-Wheel Drive Component Diagnosis and Repair

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.

