

AUTO-11 #56503 Spring 2021 Instructor: Mr. Garza

Class meets: Mon.-Fri. 7:30am-1:20pm

Classroom: SOC. 32

Office Hours: Mon.-Fri. 7-7:30, M-Th. 9:40-10:10, Fri. 9:30-10 Office: IND. 6

Phone: (559) 638-0300 ext.3479

Shop 638-0372

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Course Description:

This course AT-11, in concert with AT-10, will prepare the student with the knowledge and skills to perform diagnosis and repair of various automotive components and enter the automotive service industry at the advanced apprentice level. Subjects include: Safety, Ethics, Regulations, Engine Performance: Fuel, Ignition and Emission Control Systems. Most tools and equipment are provided; however, the student is expected to furnish a Digital Volt Ohm Meter (DVOM), personal safety items, and a uniform shirt.

COURSE OUTCOMES:

Upon completion of this course, students will be able to:

AUTOT-11 SLO1: correctly choose and utilize hand and power tools.

AUTOT-11 SLO2: diagnose and repair air conditioning and heating systems.

AUTOT-11 SLO3: diagnose and repair brake systems.

AUTOT-11 SLO4: diagnose and repair suspension and steering systems.

AUTOT-11 SLO5: diagnose and repair the differential and axle systems.

AUTOT-11 SLO6: diagnose and repair the engine electrical and electronics systems.

AUTOT-11 SLO7: diagnose and repair the engine fuel delivery and emissions systems.

AUTOT-11 SLO8: identify the industry standards for the Automotive Repair Industry.

AUTOT-11 SLO9: know the application process for the California Emissions, Brake, and Lamp Licenses.

AUTOT-11 SLO10: work safely in an automotive repair environment.

COURSE OBJECTIVES:

In the process of completing this course, students will:

A. Identify shop safety and hazardous materials regulations and standards.

B. Perform the correct use of diagnostic test equipment.

C. Comprehend and evaluate the electronic engine management systems.

Required text

MUST HAVE REQUIRED TEXTBOOK BY START OF SECOND WEEK!!!

Automotive Electrical and Engine Performance, seventh edition, James D. Halderman.

Grading

1.	Quizzes	34%
2.	Exams	33%
3.	Lab	33%

TOTAL GRADE _____

Grade Distribution

Grade	Percent
A	90% or greater
B	Less than 90%
C	Less than 80%
D	Less than 70%
F	Less than 60%

Attendance

Attendance is a key factor in your success as a college student. **If you are absent more than three times in the first nine weeks, you will be dropped. If you exceed three absences after mid-term (9 weeks) you will have 5% of your overall grade deducted for each additional absence at the end of the semester.** You are expected to attend all class meetings, to be on time, to be prepared and to be in class the entire class period.

- a. **Three** tardies equal **one** absence. Please be on time.
- b. **Three** early-outs equal **one** absence. Please make appointments after class.
 1. A student must be in class for at least 3 hours for a tardy or early out, if not, it will be charged as an absence.
- c. Exceptions may be made at Instructor's discretion on a case-by-case basis.

Students should evaluate their own health daily and must complete the online health screening available daily:

https://scccd.az1.qualtrics.com/jfe/form/SV_3IO880HybZg7ajX

If they have any of the following symptoms, they should not attend class. Students are encouraged to contact the nurse or healthcare provider for further guidance. Common COVID-19 symptoms include, but are not limited to:

- cough
- sore throat
- shortness of breath
- runny nose (not due to seasonal allergies)
- fever (100.4 degrees or more)
- and/or chills

Students should also not attend class if they have had close contact with anyone who has had these symptoms in the last 14 days.

Students who have been absent should review the class materials and contact me to ensure that they do not fall behind in their course work.

Students may be dropped if they miss more than two consecutive class meetings without explanation before week 4.

COVID 19 Safety Practices

Facial Coverings: Students and instructors are required to wear facial coverings or masks that cover and fit the face against the nose and mouth when entering, exiting, and

throughout class. Students who have a documented medical condition that prevents them from using a snugly fitting facial covering can use face shields as an alternative.

Handwashing: Students are required to wash their hands or use hand sanitizer prior to class. Hand sanitizer is available in the classroom for their use.

Social Distancing: Students are required to stay at least 6 feet apart while on campus. In the classroom, maintain social distance and sit in seats as designated by the seating chart.

Classroom Cleaning: Students will wipe down their seating/work area with disinfectant before and after class.

Safety procedures are subject to update.

Classroom Computers

This class utilizes computers. To minimize the risks surrounding shared equipment, Reedley College is asking that you bring your own laptop from home. If you do not have a computer at home, contact College IT at (559) 637-2555. They will loan you a laptop to utilize in all class and lab locations this semester. If you need to print materials accessed during class, there will be a printing location available to students. As more information becomes available, I will let you know.

The drop date without credit deadline is the ninth week of instruction **Friday, March 12** (a letter grade is issued after this date). The student will be evaluated by quizzes, exams, and shop work.

1. Falling asleep in class and/or disruptive behavior **will not be tolerated. If student is asked to leave for such actions this will result in student being counted absent for the day.**
2. Use of cell phones, smart watches, iPods, BlackBerry, PDA, pagers, cameras, recorders, tablets and laptops **during class and shop will not be allowed** (exception made at Instructor's discretion on a case-by-case basis). The use of technology in the automotive facility is solely permitted for the purpose of facilitating learning. Please turn off all electronic devices prior to start of each class unless permitted by instructor.

Classroom/Shop Department

1. **Each student is expected to respect the rights of other students and the instructor. Students who do not behave in a respectful manner will be dropped from the class. NO FOOD, CELLULAR PHONES OR PROFANITY AT ANY TIME!!!!**
You will be expected to take care of any personal needs such as going to the restroom, getting a drink of water, sharpen your pencil, ect; prior to the start of class. Students who do not follow program policies will be asked to leave and marked absent for the day.
2. **Each student will be assigned a locker. Use it to store your materials.**
3. **No backpacks allowed in classroom or shop.**
4. **Students who are not prepared or do not have the required materials** (safety glasses, DVOM, uniform shirt, textbook, ect.) **will be asked to leave and marked absent for the day.**

Student Rights

Students are encouraged to become familiar with the “Campus Policies” section of the Schedule of Courses. This material includes information regarding cheating and plagiarism, disruptive classroom behavior, and other instructional issues.

Assignments

1. Students will follow lecture and reading schedule for reading assignments.
2. All homework will be turned in on the assigned date. **All late assignments will be penalized a minimum of 10% for each day late. Notebooks will not be accepted late.**
3. Electronic duplication from other students or sources is prohibited if not approved by instructor.
4. Copying, cheating of any kind will not be accepted. **Students found cheating will be dropped.**
5. Work will be graded on completeness, neatness, and effort. **I will not accept work on spiral bound notebook paper.**

Quizzes and Exams

1. Make-up of quizzes.
It is your responsibility to notify me **in advance** that you will be unable to take a quiz as scheduled.
 - a. **It is the student’s responsibility to contact instructor.**
 - b. Quizzes cannot be made up if:
 1. Reviewed in class
 2. Excuse for absence is unacceptable
 3. Student is limited to **one make-up** per semester
 4. The final exam may not be made-up
 - c. Make-up quiz will be arranged by the instructor.
 - d. There will be a **10% deduction** for make up quiz.
 - e. There will be a **10% deduction** for any quiz or exam that does not have student’s assigned grade number.
 - f. There will be **NO ADJUSTMENTS** made for electronic scoring where scantron has erase marks, smudges, wrinkles, ect.
 - g. There will be a **10% deduction** for scantrons that must be hand scored because of frayed, wrinkled scantron.
2. There will be two exams:
 - a. a mid-term exam.
 - b. final exam during finals week.

Having Trouble?

If at any time you are having trouble succeeding in this course, whether because of a change in your life circumstances or because of something you do not understand about the material- please see me. There are a number of services available to assist Reedley College students succeed in their coursework, and I would be happy to recommend one of these to you.

Accommodations for Students with Disabilities

If you have a verified need for an academic accommodation or materials in alternate media (i.e. Brail, large print, electronic text, ect.) per the Americans with Disabilities Act (ADA) or section 504 of the Rehabilitation Act, please contact me as soon as possible.

Lecture and Lab Rotations

(A) Nine one hour lectures per week. (see weekly schedule handout)

(B) Five lab rotations (Labs 1-4 5 days, Lab 5 six days)

1. Computerized Engine Controls
2. Computerized Engine Controls
3. Ignition Systems
4. Fuel/Air Induction & Exhaust Systems
5. Emission Control Systems

This schedule and syllabus are subject to change at the discretion of the instructor- it is the responsibility of the student to check on announcements made during any absence.

Holidays Martin Luther King Holiday, Mon. Jan. 18
 Presidents' Holiday Fri. Feb. 12 and Mon. Feb. 15
 Spring Break, March 29 - April 2

Dates to remember

CAT Conference Friday April 23

(Tentative)

Class lecture and reading schedule

Chap./s

Week

1	Orientation, Computer Fundamentals	13
2	CAN/Network Communications	14
3	On-Board Diagnostics	27
4	Temperature Sensor	28
5	Throttle Position Sensors	29
6	MAP Sensors	30
7	MAF Sensors	31
8	Oxygen Sensors	32
9,10	Ignition Systems	33
11,12,13	Fuel Systems, Diagnosis & Service	34, 35,38
14,15	Emission Controls	39,40
16,17	Engine Performance Diagnosis	41
18	<u>Finals Week</u>	