

REEDLEY COLLEGE
AUTO TECHNOLOGY 11 (AUTOT 11) #56503
AUTOMOTIVE TECHNOLOGY
SYLLABUS

Spring 2021
Day: M - F
Hours: 7:30 AM – 1:20 PM
Credit: 16 Units

Instructor: Mr. Stephen Rosendale
Office: AUTO 6 E-mail:
stephen.rosendale@reedleycollege.edu
Phone: (559) 494-0300 Ext. 3251
Phone: (559) 494-0372

1. COURSE DESCRIPTION:

This course, Automotive Technology-11, in concert with Automotive Technology-10, will prepare the student with the knowledge and skills to perform diagnosis, repair of various automotive components, and enter the automotive service industry at the advanced apprentice level. Subjects include: safety, ethics, regulations, brakes, suspension and steering, differentials, axles, engine electrical and electronic systems, engine performance and emissions, air conditioning and heating, and Bureau of Automotive Repair (BAR) emissions (smog), brake and lamp license preparation. Most tools and equipment are provided, however the student is expected to furnish Digital Volt Ohm Meter (DVOM), Vacuum gauge, uniform shirts and personal safety items.

2. COURSE OBJECTIVES:

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

- a. Identify the industry standards for the Automotive Repair Industry.
- b. Identify shop safety and hazardous materials regulations and standards.
- c. Perform the correct use of hand and power tool utilization.
- d. Comprehend and critically evaluate the engine fuel delivery and emissions systems.
- e. Comprehend and critically evaluate the electrical and electronics systems.
- f. Comprehend and critically evaluate brake systems.
- g. Comprehend and critically evaluate the suspension and steering systems.
- h. Comprehend and critically evaluate the air conditioning and heating systems.
- i. Comprehend and critically evaluate the differential and axle systems.
- j. Identify and comprehend the rules and regulations regarding the California State Emissions, Brake, and Lamp Licenses.

3. PREREQUISITE(S):

Automotive Technology 9.

4. TEXT AND EQUIPMENT NEEDED:

- a. Text: Manual Drivetrains and Axles, 8th ed., Halderman, Publisher – Pearson. ISBN-13: 9780134603698
- b. Text: Automatic Electrical and Engine Performance, 7th ed., Halderman, Publisher – Pearson. ISBN-13: 9780134402703
- c. Text: Automotive Heating and Air conditioning, 8th ed., Halderman, Publisher – Pearson. ISBN-13: 9780134603698
- d. Three (3) ring binder for syllabus, handouts, notes, quizzes and any other items you or the instructor think is important. Note book will have labeled dividers with the syllabus as the first section.
- e. Scantron #882 & #889 with a #2 pencil for exams and quizzes.

5. ATTENDANCE:

- a. **Students are expected to attend all class sessions in order to be successful in college.**
- b. 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.
 - i. Three tardies equal one absence. Please be on time.
 - ii. 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.
 - iii. Exceptions may be made at Instructor's discretion on a case-by-case basis.
- c. Students can be dropped if you are absent once in the first week.
- d. In case of prolonged illness or unusual circumstances that keep you away from class, notify your instructor.
- e. You are expected to be on time and prepared for every class meeting. This includes any personal needs such as using the bathroom, turning off and putting away phones, finding parking, sharpening pencils or having a good pen etc. prior to the start of the class session. If a student is tardy, this creates a disruptive behavior and said student can be asked to leave and will be marked as absent.
- f. Falling asleep and/or disruptive behavior in class/shop will **not be tolerated**. If student is asked to leave for such actions this will result in student counted absent for the day.
- g. Use of cell phones, iPods, iPads, tablets, Blackberry, PDA, pagers, cameras, recorders and laptops during class and shop will not be allowed. Exceptions may be made by the instructor(s) discretion on a case-by-case basis.
- h. **FINAL DROP DATE IS THE END OF THE NINETH (9) WEEK OF CLASS (MAR 9)!** If you should decide to drop this course for any reason, it is your responsibility, not the instructor, to make the drop official. This may be done by filling out the appropriate forms in the admissions office. (Note: Failure to follow RC policies, procedures, and timelines will result in the letter grade of "F").

6. OFFICE HOURS:

- a. The instructor will have four (4) office-hour sessions on campus for 30 minutes on Mondays - Thursdays at 10:00 – 10:30 AM in my office (IND7). The instructor will also have a one (1) office-hour session on campus Monday at 3:00 – 3:50 PM in my office (IND7).
- b. The instructor will have one (1) hour of virtual office that can be accessed with a computer (email) by the student on Wednesday from 4:00 pm until 4:50 pm. The student will need to communicate with the instructor via email.

7. STUDY ASSISTANCE:

- a. If you should experience difficulty grasping the material presented during the course, see your instructor at the earliest possible date, either after class or by appointment during office hours.
- b. All students are encouraged to attend Beyond the Class (BTC) study group sessions.

8. MAJOR ASSIGNMENTS:

- a. **Assignments:**
 - i. Reading: Weekly-reading assignments from the text and reference materials will be related to topics covered in class.
 - ii. Writing/Problem Solving or Skill Attainment:
 1. Weekly outside written assignments will be required.

2. The student will develop a notebook that will include all distributed information, notes, and written assignments.

b. Assessment:

- i. Grades will be based upon:
 1. Non-Computational Problem-Solving:
 - a. Proper safety procedures.
 - b. Proper choice and use of test equipment and tools.
 2. Multiple choice: ASE style exams are multiple choice.
 3. Other:
 - a. Students may be required to turn in assignments from the text and are graded on them.
 - b. Students may be required to develop and turn in a notebook.
- c. All work will be graded on its completeness, neatness and effort. If work is to be turned in on paper it must be on an 8.5" x 11" piece of paper. This is the standard size of paper in most incidences. Spiral bound notebook paper will not be accepted.

9. GRADING POLICY:

- a. **REMEMBER THE FINAL DROP DEADLINE DATE. AFTER THAT POINT YOU MUST RECEIVE A LETTER GRADE FOR THIS CLASS.**
- b. Quizzes, tests, and exams are graded on a point basis. The final grade is based on a percentage of the total points earned.

90 to 100% = A	Tests	35%
80 to 89% = B	Home/Classwork	10%
70 to 79% = C	Quizzes	10%
60 to 69% = D	Lab Sheets	35%
Below 59% = F	Notebook	<u>10%</u>
	Total	100%

- c. **THE FINAL EXAM MAY NOT BE MISSED! THE FINAL EXAM MAY NOT BE MADE UP!**
- d. **Make-up Policy:**
 - i. If you know you are going to be absent, you can arrange (24 hours prior to the test) for a make-up test without penalty. (Note: The make-up test may differ from the regular test given; however, the content will be similar.)
 - ii. A test must be made up within one (1) week of the original scheduled date. It is your responsibility to make the necessary arrangements with your instructor.
 - iii. Unless prior arrangements have been made (see #1 above), a make-up test taken after the scheduled test date will automatically drop 10% (one letter grade) from the score received.
- e. Dress code and safety policies will be strictly enforced. (The student's grade will be lowered for failure to comply.)
- f. Extra credit will be at the instructor's discretion. The instructor will determine assignments and content.
- g. Unauthorized reproduction (audio/visual/photocopy) of lecture information, handouts, notes, and materials will be strictly forbidden without written.

Note: Student assessment is performed by questions written by the book author in ASE format. These questions are posted on Blackboard within the course. A 70% passing grade is the **minimum** industry assessment.

10. READING AND HOMEWORK ASSIGNMENTS: (See page 4)

- a. **THE INSTRUCTOR WILL ASSIGN HOMEWORK AND DUE DATES DURING THE SEMESTER.**
- b. Homework assignments are to be submitted by the due date assigned. **LATE ASSIGNMENTS**

WILL NOT BE ACCEPTED

- c. You may expect to take a quiz at any time, without prior notice.

11. CLASSROOM/SHOP DEPARTMENT and MISCELLANEOUS:

- a. Each student is expected to respect the rights of other students and the instructors. Students who do not behave in an adult respectful manner will be dropped from the class.
- b. **NO** Food, Cellular Phones or PROFANITY at any time!!!!!!!
- c. Each student will be assigned a locker. Each student must use it to store their materials. No backpacks allowed in the classroom or shop.
- d. Students who are not prepared or do not have the required materials (safety glasses, DVOM, uniform, textbook, etc.) will be asked to leave and marked absent for the day.

IMPORTANT NOTICE:

Homework will be assigned and completed on the Canvas website. If you are unable to log onto Canvas, please see the instructor for assistance. You can also gain assistance through the Canvas website from the “Forgot Password?” link.

**REEDLEY COLLEGE
AUTOT 11 – AUTOMOTIVE TECHNOLOGY
DIFFERENTIALS & AXLES, ADVANCED ELECTRICAL & HVAC**

Week	Topics Covered	Chapter(s)
1 – Jan 11 – 15	Syllabus, RC Auto rules & guidelines Drive Axles and Differentials	Chap 12 (Man.)
2 – Jan 18 – 22	Drive Axles and Differentials Drive Axles and Diff Diag and Service	Chap 12 – 13
3 – Jan 25 – 29	Four-Wheel and All-Wheel Drive Four- Wheel Drive Diag and Service	Chap 15 – 16
4 – Feb 1 – 5	Vibration and Noise Diag and Correction Drive shafts and CV joints and service	Chap 17, 9 – 10 (Man.)
Mid-Term	All Differential chapters	
5 – Feb 8 – 11	Lighting and Signaling Circuits Driver Information and Navigation Systems	Chap 21 – 22 (Elec.)
6 – Feb 16 – 19	Driver Information and Navigation Systems Horn, Wiper and Blower Motor Circuits	Chap 22 – 23
7 – Feb 22 – 26	Horn, Wiper and Blower Motor Circuits Accessory Circuits	Chap 23 – 24
8 – Mar 1 – 5	Airbag and Pretensioner Circuits	Chap 25
9 – Mar 8 – 12 (Drop Deadline)	Audio Systems Operation and Diagnosis	Chap 26
10 – Mar 15 – 19	Oscilloscopes and Graphing Meters Electronic Fundamentals	Chap 7, 12
Mid-Term	All Electrical chapters	
11 – Mar 22 – 26	HVAC Principles Refrigeration Cycle Refrigerant Recovery, Recycling and Recharging	Chap 1 – 2, 14 (HVAC)

12 – Apr 5 – Apr 9	Refrigerants and Refrigerants Oils A/C System Components, Op. and Service	Chap 4 – 5
13 – Apr 12 – 16	A/C Compressors & Service, Heating and Air-Conditioning System Inspection, A/C System Diagnosis and Repair, Air Management System	Chap 3, 13, 15, 6
14 – Apr 19 – 23	Cooling System Op & Diag Heating System Op & Diag	Chap 8 – 9
15 – Apr 23 – Apr 30	Automatic Temperature Control Systems	Chap 11
16 – May 3 – 7	Hybrid Electric Vehicle Safety Procedures Fuel Cells and Advanced Technologies	Chap 43 – 44 (Elec.)
17 – May 10 – 14	Finals Week	HVAC Final

ACADEMIC DISHONESTY

REFERENCE STUDENT CONDUCT STANDARDS IN THE CURRENT REEDLEY COLLEGE STUDENT HANDBOOK

Academic dishonesty is unacceptable and will not be tolerated by Reedley College. Cheating, plagiarism, and collusion in dishonest activities erode the college’s educational and social role in the community.

IMPORTANT NOTICE:

“If you have a verified need for an academic accommodation or materials in alternate media (i.e.: Braille, large print, electronic text, etc.) per the Americans with Disabilities Act or Section 504 of the Rehabilitation Act, please contact your instructor as soon as possible.”

* SUBJECT TO CHANGE WITHOUT NOTICE *

Please Note: This syllabus is NOT a legal covenant or contract between the instructor and student. It is an informal publication designed to provide the student with general guidance during the semester. The schedule and procedures for this course are subject to change at the discretion of the instructor.

-----Detach and sign-----

I, _____ have read the syllabus for Auto T 11 (#56503) and have no questions concerning its contents at this time.

Signature

Date