**Reedley College Automotive Technology**

# AUTOT 10 #59275

Instructor: Mr. Guzman rudy.guzman@reedleycollege.edu Fall Semester 2014

Phone: 638-3641 Ex. 3292 Shop Phone: 638-0372

Office Hours: Monday, Tuesday, Thursday 1:30 PM to 2:30 PM

Text: Automotive Engines Diagnosis, Repair, and Rebuilding 6th Edition

Author: Tim Gilles

Automotive Transmissions and Transaxles 4th edition

Author: Chek - Chart

Class meets Daily 7:30 AM to 1:20 PM Drop deadline: October 10, 2014

**Reading Assignments**: All prescribed reading assignments are due on dates specified in study schedule. Additional assignments may be required as handouts. Information on reading assignments and lecture will be used on quizzes and tests. NOTE: Must have Books and Supplies by Monday of the Second Week of instruction or be dropped from class.

**Quizzes:** There will be quizzes given once a week. Questions on quizzes will come primarily from instructor’s lectures and reading assignments.

**Tests:** There will be one midterm and one final exam for every section taught. The final exam will cover material taught during the entire semester. Questions for midterm and final will come primarily from the A.S.E. Nat’l exam. You will need a Scantron No. 882 and to No. 2 pencils.

Final exam will be on December 12, 2014

**Notebooks:** A notebook will be required at the end of the fall semester. It will include a title page, table of contents, study schedule, task sheet, class notes, attendance records, handouts, quizzes, and tests.

**Lab Work: Safety** in the shop is will be everyone’s responsibility. Please report any problems with tools, equipment or students working in an unsafe manor. You will be given task sheets. After each assigned task is completed student must demonstrate competence in that task to the instructor. Task sheet must be filled out by students & signed by the instructor. The instructor for lab work will choose groups. The instructor will grade participation in all activities in lab and classroom.

**Attendance:** In the workplace, attendance and being on time are critical. If you are absent more than three times in a semester, you may be dropped from class. Three tardies are equal to one day absent. Three early outs equals one day absent. Lost time cards will be counted as time absent from class.

**Plagiarism and Cheating:** Will not be tolerated, students will be sent to the Dean and may be expelled from school.

**Course Objectives:** In the process of completing this course, students will:

1. Learn to work safe in a shop environment
2. Manage hazardous waste materials
3. Develop an understanding of the Automotive Industry
4. Identify and use tools and shop equipment
5. Identify and use automotive measuring devices
6. Analyze and identify engine components
7. Analyze and identify electrical systems
8. Diagnose and repair automatic transmissions
9. Diagnose and repair electrical systems
10. Diagnose and repair engines

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

1. Diagnose, repair, and service automobiles and light truck engines utilizing the logic and reasoning developed in class through hands-on experience.
2. Apply safety procedures in a shop environment and follow hazardous waste handling procedures.
3. Apply and demonstrate shop procedures from hands on experience.
4. Diagnose, repair and service clutches utilizing the logic and reasoning developed in class through hands-on experience.
5. Perform electrical system repairs and service in accordance with accepted industry practices.

NO EXCUSES ARE ACCCEPTED ON ATTENDENCE

**Grading Policy:**

Quizzes and Notebook\_\_\_\_\_ 30 percent A- 100-90%

Tests\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 30 percent B- 89-80%

Lab Assignments\_\_\_\_\_\_\_\_\_ 30 percent C- 79-70%

Employability\_\_\_\_\_\_\_\_\_\_\_\_ 10 percent D- 69-60%

F- 59% - ↓

**Accommodations for students with disabilities:**

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

Reedley College Automotive Technicians A. S. degree program will provide 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.

Students are required to be prepared, with books, pencils, and all other materials for class. Disruptive behavior in class will not be tolerated. No radios, cell phones, IPods or products that may disrupt the class will be allowed in the classroom or shop. Welcome to Reedley College and have a great and productive semester.

REEDLEY COLLEGE AUTOMOTIVE TECHNOLOGY

READING AND LAB ASSIGNMENTS

ENGINES AND AUTOMATIC TRANSMISSIONS

Instructor: Mr. Guzman Fall 2014

Reading assignments must be read before lectures on subject matters. Questions on quizzes will come from reading assignments, handouts, and lectures.

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| WEEK | ASSIGNMENT | READING |
| 1. Aug 11-15 | Safety and Measurements | Handouts, Ch. 6 |
| 2. Aug 18-22 | Safety, Tools and Equipment | Ch. 2 |
| 3. Aug 25-29 | Engine operation and construction, Engine removal: Cleaning the Engine | Ch. 1 & 5 |
| 4. Sept 2-5 | Disassembling, Diagnosis mechanical problems; Engine Removal | Ch. 3 & 4 |
| 5. Sept 8-12 | Cylinder Block inspection and service | Ch 11 |
| 6. Sept 15-19 | Engine Power and Performance | Ch. 10 |
| 7. Sept 22-26 | Engine lubrication system & Cooling System | Ch 14 & 15 |
| 8. Sept 29-Oct 3 | Cylinder heads, Springs Valves Valve seats | Ch. 7 & 8 |
| 9. Oct 6-10 | Camshaft, Lifters, Timing Belts and Chains | Ch. 9 |
| 10. Oct 13-17 | Crankshaft, Bearings, Pistons Rings Connecting Rods gaskets, seals, sealants, mounts | Ch. 12, 13 & 16 |
| 11. Oct 20-24 | Engine Reassembly, Starting & installation **ENGINE FINAL Oct. 24** | Ch. 17 |
| 12. Oct 27-31 | Intro to Automatic Transmission | Classroom Ch. 1 |
| 13. Nov 3-7 | Gears and gear sets, Apply Devices | Classroom Ch. 2, 6 |
| 14. Nov 11-14 | Transmission fluids, filters, and coolers | Classroom Ch. 7 |
| 15. Nov 17-21 | Hydraulic fundamentals and systems | Classroom Ch. 3, 4 |
| 16. Nov 24-26 | Fluid couplers and torque converters | Classroom Ch. 5 |
| 17. Dec 1-5 | Gaskets, Seals, Bushings, Washers and Snap rings | chapter 8 |
| 18. Dec 8-12 | **Finals Week Automatic Transmission Final** |  |

LAB ASSIGNMENTS

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| GROUPS | ASSIGNMENTS |
| First rotation | Engine Disassembling, inspecting, measuring, and cleaning methods |
| Second rotation | Cylinder Head Disassembling, inspecting, measuring, and cleaning |
| Third rotation | Engine and Cylinder Head assembly |
| Fourth rotation | Engine Testing compression test, leak down, cooling system |
| Fifth rotation | Automatic transmission disassembly and assembly |
| Sixth rotation | Valve body and pump disassembly and inspection, Transmission pressure test |