MIDLAND COLLEGE SYLLABUS AUMT 1306 AUTOMOTIVE ENGINE REMOVAL AND INSTALLATION 2-4

<u>Course Description</u>: Fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific.

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

<u>Text, References and Supplies</u>: 1. "TODAY'S TECHNICIAN" AUTOMOTIVE ENGINE REPAIR AND REBUILDING by Hollembeak. Delmar Publishers.

<u>Course Goals/Objectives</u>: Utilizing appropriate safety procedures, the student will perform mechanical engine tests to determine extent of repair or service; demonstrate proficiency in engine removal and installation techniques in various types of vehicles.

A. GENERAL ENGINE DIAGNOSIS; REMOVAL AND REINSTALLATION (R&R)

- 1. Interpret and verify complaint; determine needed repairs.
- 2. Inspect engine assembly for fuel, oil, coolant and other leaks; determine needed repairs.
- 3. Diagnose the cause of excessive oil consumption, unusual engine exhaust color, odor and sound; determine needed repairs.
- 4. Perform engine vacuum tests; determine needed repairs.
- 5. Perform cylinder power balance tests; determine needed repairs.
- 6. Perform cylinder compression tests; determine needed repairs.
- 7. Perform cylinder compression leakage tests; determine needed repairs.
- 8. Remove engine (front-wheel drive); prepare for disassembly.
- 9. Reinstall engine (front-wheel drive).
- 10. Remove engine (rear-wheel drive); prepare for Dis-assembly.
- 11. Reinstall engine (rear-wheel drive).

Students may perform the following tasks in order to maintain safe lab and classroom spaces:

- Participate in shop and classroom maintenance which may include, but not limited to sweeping, mopping, disposing of trash, cleaning work benches, organize tools and equipment, organize tool room, disinfect classroom tables and chairs.
- Disassemble discontinued lab training vehicles or equipment for salvage.
- Repurpose lab vehicles to be utilized in lab assignments.
- Other course related tasks as assigned by instructor.

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Student Contributions and Class Policies:

1 Student/Participant must furnish a set of approved safety eye glasses.

2. Student/Participant must understand class attendance is critical; therefore, three consecutive absences or five total absences may be considered justification for failure or dismissal from class.

3. Punctuality, being prepared for class, being alert, participating pro-actively and exhibiting a respectful and appropriate attitude will be required.

Evaluation of Students:	Chapter Questions& Final Exams			40%
	Attendance Lab Tasks		Total	10% <u>50%</u> 100%
	90 and above 80-89 70-79 60-69 59 and below	A B C D F		

Course Schedule: This class meets for 2 lecture hours and 4 lab hours per week.

SCANS Information: SCANS skills are taught and/or reinforced in automotive courses. The student must locate, read, interpret and understand instruction information and direction materials. The participant must communicate thoughts, ideas and information through verbal and written mediums. Practical arithmetic and mathematics will apply continually throughout automotive technology training. Listening, interpreting, and responding to verbal communications and instructions as well as speaking in response to questioning will be a daily involvement. Thinking, reasoning, visualizing and problem solving are required assets to the automotive technician. The student/participant must display responsibility, self-management and honesty.

Administrative Information:

Curt Pervier, Dean, Applied Technology

Lisa Hays, Division Secretary, Applied Technology (432) 685-4676 Fax: (432) 685-6472

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Students should feel free to contact the instructor at any time. Appointments are encouraged for advising and planning the most appropriate or beneficial course work.

*Syllabus subject to change as deemed necessary by the instructor to ensure learning objectives and course goals are met.

Non-Discrimination Statement

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

Tana Baker

Title IX Coordinator/Compliance Officer 3600 N. Garfield, SSC 131 Midland, Texas 79705 (432) 685-4781 tbaker@midland.edu

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

Americans with Disabilities Act (ADA) Statement:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit <u>www.midland.edu/accommodation</u> and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.