

MIDLAND COLLEGE
SYLLABUS
AUMT 2334
ENGINE PERFORMANCE ANALYSIS II
2-4

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Course Description: Diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. May be taught manufacturer specific.
Prerequisite: AUMT 2317, or instructor approval.

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.

Text, References and Supplies: 1. AUTOMOTIVE ENGINE PERFORMANCE by Ken Pickerill. Delmar Publishers. 4th Edition.

Course Goals/Objectives: Utilizing appropriate safety procedures, the student will explain the operation, diagnosis, and repair of emission control systems; describe the operation, diagnosis, and repair of computerized engine performance systems and advanced ignition and fuel systems; and demonstrate proper use of advanced engine performance diagnostic equipment.

- A. GAUGES, WARNING DEVICES, AND DRIVER INFORMATION SYSTEMS DIAGNOSIS AND REPAIR
- B. COMPUTERIZED ENGINE CONTROLS DIAGNOSIS AND REPAIR
- C. IGNITION SYSTEM DIAGNOSIS AND REPAIR
- D. FUEL, AIR INDUCTION, AND EXHAUST SYSTEMS DIAGNOSIS AND REPAIR
- E. EMISSIONS CONTROL SYSTEMS DIAGNOSIS AND REPAIR
 - a. Positive Crankcase Ventilation
 - b. Exhaust Gas Recirculation
 - c. Exhaust Gas Treatment
 - d. Intake Air Temperature Controls
 - e. Early Fuel Evaporation (Intake Manifold Temperature) Controls
 - f. Evaporative Emissions Controls
- F. ENGINE RELATED SERVICE

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	10%
	Lab Tasks	<u>50%</u>
	Total	100%

90 and above A

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80-89	B
70-79	C
60-69	D
59 and below	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, Division Dean Applied Technology

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

Pete Avalos, Department Chair/Professor
ATC Office #128
(432) 681-6344
pavalos@midland.edu

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.

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Students with Disabilities:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must place documentation on file with the Counselor/Disability Specialist. Students with disabilities should notify Midland College prior to the beginning of each semester. Student Services will provide each student with a letter outlining any reasonable accommodations. The student must present the letter to the instructor at the beginning of the semester.

Midland College Non-Discriminatory 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 individuals have been designated to handle inquiries regarding the non-discrimination policies: **Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu**. For further information on notice of non-discrimination, visit <http://wdcrobcopl01.ed.gov/CFAPPS/OCR/contactus.cfm> or call **1 (800) 421-3481**.

Spanish

Midland College no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad, o edad en sus programas o actividades. Las siguientes personas han sido designadas para responder a cualquier pregunta o duda sobre estas políticas no discriminatorias: **Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu**. Para más información sobre estas políticas no discriminatorias, visite <http://wdcrobcopl01.ed.gov/CFAPPS/OCR/contactus.cfm> o llame al **1 (800) 421-3481**.