**Course Description:** Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include brake theory, diagnosis and repair of power, manual, anti-lock brake systems, and parking brakes. 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.

**Text, References and Supplies:** 1. “Medium/Heavy Duty Commercial Vehicle System” by Owen C. Duffy and Gus Wright Text: 9781284041163 WkBk: 9781284041200 (Note that only one workbook is required for ALL courses: DEMR 1305, 1317, 1321, 1329, 1330, 1335)

**Course Goals/Objectives:** Utilizing appropriate safety procedures, the student will diagnose and repair hydraulic systems; diagnose and repair drum/disc brake systems; diagnose and repair parking brakes; and diagnose and repair anti-lock brake systems.

A. FOUR-WHEEL DRIVE/ALL-WHEEL DRIVE COMPONENT DIAGNOSIS AND REPAIR  
B. HYDRAULIC SYSTEM DIAGNOSIS AND REPAIR  
C. DRUM BRAKE DIAGNOSIS AND REPAIR  
D. DISC BRAKE DIAGNOSIS AND REPAIR  
E. POWER ASSIST UNITS DIAGNOSIS AND REPAIR  
F. MISCELLANEOUS (WHEEL BEARINGS, PARKING BRAKES, ELECTRICAL, ETC.) DIAGNOSIS AND REPAIR  
G. ANTI-LOCK BRAKE SYSTEM  

**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 Exam: 40%  
- Participation: 10%  
- Lab Tasks: 50%  
- Total: 100%  
- 90 and above: A  
- 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 diesel 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 diesel 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, Applied Technology Dean
Lisa Hays, Division Secretary
Applied Technology
(432) 685-4676
Fax: (432) 685-6472

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.

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 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://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm or call 1 (800) 421-3481.

Spanish
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