Course Description: A study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials with emphasis on diagnosis and repair. 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.


Course Goals/Objectives: Utilize appropriate safety procedures; diagnose and repair drivelines, clutches, manual transmissions/transaxles, and differentials; and service constant velocity joints and universal joints.

A. CLUTCH DIAGNOSIS AND REPAIR
B. TRANSMISSION DIAGNOSIS AND REPAIR
C. TRANSAXLE DIAGNOSIS AND REPAIR
D. DRIVE AND HALF SHAFT UNIVERSAL AND CONSTANT-VELOCITY (CV) JOINT DIAGNOSIS AND REPAIR
E. REAR AXLE DIAGNOSIS AND REPAIR
   a. Ring and Pinion Gears and Differential Case Assembly
   b. Limited Slip Differential
   c. Axle Shaft
F. FOUR-WHEEL DRIVE/ALL-WHEEL DRIVE COMPONENT DIAGNOSIS AND REPAIR

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 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 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 Chair Technical Studies
Lisa Tanner, Applied Technology Secretary
(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.