

## COURSE SYLLABUS

Manual/Automatic Drive Trains

WVEIS 1635

Credits: 1

### Course Description

- This course will introduce students to the manual/automatic drive train and axle systems of the automobile. Areas of study include; clutch diagnosis and repair, manual transmission diagnosis and repair, manual transaxle diagnosis and repair, diagnosis and repair of universal and constant-velocity (CV) joint, ring and pinion gears and differential case assembly, limited slip differential diagnosis and repair, four-wheel drive/all wheel drive component diagnosis and repair, automatic transmission/transaxle diagnosis, maintenance and adjustment, oil pump and converter diagnosis and repair, inspect and repair manual gear train, shafts, bushings and case, inspect and repair automatic gear train, shafts, bushings and case. Group and individual activities engage students in problem-solving techniques and manipulative skills while completing industry related activities. Safety instruction is integrated into all activities. Students are encouraged to become active members of SkillsUSA, the national student organization for those enrolled in Automotive Technology.

### Prerequisites

- No prerequisites are required

### Textbooks

- Fundamentals of Automotive Technology
- Light Vehicle Tasksheet Manual for NATEF Proficiency

*Students are responsible for all textbooks and workbooks assigned to them and will be required to replace them if lost or damaged.*

### Additional Reading, References, or Resources

- Use of computer programs, such as CDX and ALLDATA are necessary for instruction. Students also use repair manuals and other reference materials, as well as trade magazines.

### Instructional Philosophy

- With more than 30 years of combined experience in teaching and industry, I am very familiar with the requirements necessary to be a successful automotive technician. My method of instruction follows this simple philosophy: Students have the right to learn and I have the right, in fact the obligation, to teach. I can identify closely with my students, because I too received part of my automotive education through a vocational program, such as this. This experience has given me the opportunity to be employed in a rewarding and challenging career. I am excited about sharing this opportunity with my students.

### Method of Instructional Delivery

- Instruction combines the use of CDX self paced instruction via the computer, classroom lectures, powerpoints, labs, and hands on demonstration/training in shop.

### Assessment System

- Grading scale is based on the county-wide scale:
  - A 93-100
  - B 85-92
  - C 75-84
  - D 65-74
  - F Below 65

Final Grades are determined by written tests, performance examinations, daily grades and course examination (20%).

### Academic Rigor

- Coursework is guided by:
  - Content Standards and Objectives provided by the WV Department of Education
  - Industry Standards
  - The West Virginia Standards for 21<sup>st</sup> Century Learning
  - NATEF Standards

### Classroom Guidelines

- Rules
  - Once the bus drops you off, come directly into classroom, gather supplies, find your seat and be ready to work.
  - Show respect and common courtesy to instructor, peers, and any visitors to our classroom.
  - Do not talk while the teacher or anyone else is speaking.
  - Raise your hand to be called on when wanting to contribute to discussion or asking question.
  - Request permission to leave your seat or work area.
  - Food and drinks in the classroom are a privilege that will be taken away if the classroom and/or shop are not kept clean.
  - Sleeping is not tolerated. If your head is down, you are considered sleeping.
  - Cell phones are prohibited at all times. Any cell phones seen will be taken and returned student's parents.
  - Music players are to be turned off and put away during instructional time.
  - Break time is a privilege that can be taken away if class is not making adequate progress or for behavioral reasons.
  - The class phone may only be used with instructor permission.
  - Students may not be in shop area without instructor permission.
  - All shop equipment and training vehicles require permission from instructor before student use.
  - In addition, all rules found within the Fred Eberle Handbook are expected to be followed.

### Attendance Policy and Make up Work

- Attendance is expected. Excessive absenteeism may affect your progression in or graduation from the program. Students are responsible to requesting and completing make up work.

### Discipline Policy

- Refer to school handbook for disciplinary procedures

### Contact Information

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