COURSE INFORMATION FORM

DISCIPLINE  Business
COURSE TITLE  Vehicle Maintenance

CR. HR  2  LECT HR  2  LAB HR  0  CLIN/INTERN HR.  0  CLOCK HR.  

CATALOG DESCRIPTION

This course focuses on introducing the entry-level student driver to the various aspects of vehicle maintenance. Instruction will center on the different types of maintenance, the driver’s role in the vehicle inspection process, and provide a detailed description of the major vehicle systems. Student drivers will be provided an overview concerning how to diagnose and report malfunctions. In addition students will review the SafeStat web site and the role it plays in monitoring truck company performance. A discussion of the Environmental Protection Agency (EPA) and Occupational Health & Safety (OSHA) will provide students with a more comprehensive understanding of how these agencies impact trucking.

PREREQUISITES

EXPECTED STUDENT OUTCOMES IN THE COURSE

Upon completion of this course, the student will be able to:

1. Describe the function of the major components of the air brake system
2. Identify the common malfunctions of major vehicle components
3. Outline procedures for reporting vehicle malfunctions
4. Demonstrate procedure for checking slack adjusters
5. Compare truck company safety ratings using the Safestat program
6. Identify the role of the EPA and OSHA in regards to the trucking industry
CLASS-LEVEL ASSESSMENT MEASURES

Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Examination & Quizzes (1-6)
2. Performance Exercises (1-6)
3. Homework (1 - 6)

PROGRAM-LEVEL OUTCOMES ADDRESSED

- Complete the Pre-trip Inspection test 80% or better

General Education Outcomes

Specify which general education outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes and assessment measures.

Occupational Program Outcomes

Specify which occupational program outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes to assessment measures.

- Pass State Pre-trip Inspection test 80 % or better
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Preventive Maintenance
   A. Types of Maintenance
   B. FMCSR Requirements
   C. Commercial Vehicle Safety Alliance (CVSA) Program
   D. Prohibited maintenance procedures

II. Air Brakes
    A. Air Brake System Parts
    B. Antilock Braking Systems (ABS)
    C. Slack Adjusters proper adjustment
    D. Air Brake Check Procedures
    E. Stopping Distances

III. Vehicle Parts and Accessories
    A. Lighting devices & reflectors
    B. Brake systems
    C. Air pressure and vacuum gauges
    D. Antilock Brake Systems
    E. Fuel systems
    F. Tires
    G. Sleeper Berths
    H. Horns
    I. Emergency Equipment
    J. Cargo Securement

IV. Environmental Protection Agency (EPA) Regulations
    A. Diesel Programs & Regulations
    B. Diesel Exhaust in the U.S.
    C. Transportation Partnership Programs

V. Occupational Safety & Health Administration (OSHA)
    A. OSHA Standards (Trucking Industry)
    B. Other Federal Agencies in Conflict w/OSHA Rules
    C. Trucking Industry Hazards
    D. Related Safety & Health Info

VI. Roadside Inspections & DOT Compliance
    A. Enforcement Manual
    B. Roadside Inspections Background
    C. Overview of Roadside Inspections Process
    D. Levels of Inspection
    E. Results of Inspections
    F. The Carriers Role
    G. Fines & Penalties
    H. Inspection Statistics
VII. State Pre-Trip Vehicle Inspection Test
   A. Engine Compartment
   B. Cab Check / Engine Start
   C. Parking Brake Check
   D. Air Brake Check
   E. External Inspection
   F. Side of Vehicle (Doors/Mirrors)
   G. Rear of Vehicle
   H. Trailer

VIII. State Basic Vehicle Control Skills Test
   A. Exercises
   B. Scoring
   C. State requirements for testing

IX. State On-Road Driving
   A. Procedures for making turns
   B. Managing intersections
   C. Driving on urban/rural & straight roads
   D. Making lane changes
   E. Driving on the expressway
   F. Correct stopping & starting procedures
   G. Driving around curves