

Common Course Outline
DEMT 104
Preventive Maintenance
4 Semester Hours

The Community College of Baltimore County

Description

DEMT 104 -- 4 Credits -- Preventive Maintenance

provides students a review of pre-delivery steps, preventive maintenance (PM) tasks and procedures, and a commercial vehicle inspection program (CVIP). It includes the responsibilities of the service technician to ensure that all PM items are performed to a benchmark standard. Students use manuals to determine proper lubrication of chassis, drive lines, transmissions, and engines. Students perform walk-around inspections, trailer inspections, and pre-delivery inspections.

4 credits: 2 lecture hours per week; 3 laboratory hours per week

Prerequisite: RDNG 052, ENGL 051, MATH 082

Overall Course Objectives

Upon completion of this course, students will be able to:

1. comply with personal and environmental safety practices;
2. inspect tires for irregular wear patterns and proper mounting of directional tires;
3. inspect tires for cuts, cracks, bulges, and sidewall damage;
4. inspect valve caps and stems and replace as needed;
5. measure and record tread depth; probe for imbedded debris;
6. check and record air pressure; adjust air pressure in accordance with manufacturers' specifications;
7. check axle locating components (radius, torque, and/or track rods);
8. lubricate all suspension and steering grease fittings;
9. inspect air suspension springs, mounts, hoses, valves, linkage, and fittings for leaks and damage;
10. check wheel bearings for looseness and noise;
11. inspect steering shaft U-joints, pinch bolts, splines, pitman arm-to-steering sector shaft, tie rod ends, linkage, and linkage-assist power steering cylinders;
12. check steering wheel operation for free play or binding;
13. lubricate all drive-train grease fittings;
14. check operation of clutch, clutch brake, and gearshift;
15. record air governor cut-out setting (psi); and
16. test one-way and double-check valves.

Major Topics

- I. Air brakes
- II. Hydraulic brakes

- III. Drive train
- IV. Suspension and steering systems
- V. Tires and wheels

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member and will be provided on the first day of class.

The following will be required for this course:

1. Written paper or suitable practical project
2. Midterm exam
3. Comprehensive final (including a practical exam).
 - If a written paper is assigned, the following will apply:
 - a. Topic of the paper will be selected by the student and should relate to the subject material of the course.
 - b. The paper should be six (6) to eight (8) pages in length, typewritten, and double-spaced. It should include in addition to the six (6) to eight (8) pages of text, an author and title page and bibliography utilizing a minimum of three reference resources excluding classroom materials.
 - c. All papers are due when 80% of the class sessions are completed.

In addition, students can expect additional grades from the following areas:

4. Quizzes
5. Lab Projects
6. Homework Assignments.

Other Course Information

This course is a Diesel and Equipment Maintenance Technology core course.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

(8) Date Revised: 10/17/06