

# SYLLABUS

**DIVISION: Business & Engineering Technologies**                      **REVISED: Fall 2012**  
**CURRICULA IN WHICH COURSE IS TAUGHT: Automotive Analysis and Repair**  
**COURSE NUMBER/TITLE: AUT 136-01 Automotive Vehicle Inspection**  
**CREDIT HOURS: 2 HOURS/WEEK LECTURE: 1 HOURS/WEEK LAB: 3 LEC/LAB COMB: 4**

**I. CATALOG DESCRIPTION:**

Presents information on methods for performing automotive vehicle safety inspection.

**II. RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES IN WHICH IT IS TAUGHT:**

- I. Demonstrate technical competencies and skills in suspension and steering.
- II. Demonstrate technical competencies and skills in automotive brake systems.
- III. Demonstrate technical competencies and skills in automotive exhaust systems.
- IV. Demonstrate punctuality and reliability acceptable to the automotive repair industry.
- V. Use safety equipment and procedures required for the operations being performed.
- VI. Read and interpret technical information required for projects and assignments.
- VIII. Demonstrate and maintain a clean, orderly, safe and attractive work place and maintain a personal appearance that will enhance that work place.

**III. REQUIRED BACKGROUND:**

**Textbook:** Virginia State Vehicle Inspection Manual is provided. The student is responsible for returning it in the same condition as given. Failure to do so will result in a failing grade. The student must have completed the courses in the Automotive Analysis and Repair curriculum that precede it or have the instructor's permission. The student must have a basic hand tool set and work clothes available each day.

**IV. COURSE CONTENT:**

Eligibility for Virginia State Inspection License  
Offenses that can cause the losses of State Inspection License  
Steering & suspension requirements  
Braking system requirements  
Glazing and windshield wiper requirements  
Exhaust system requirements  
Emission requirements  
Accessory requirements  
Lighting requirements

## **V. LEARNER OUTCOMES:**

**Evaluated by multiple choice, fill-in-the-blank or true/false tests:**

1. Identify state vehicle inspection eligibility requirements.
2. Identify state vehicle inspector punishment for offenses.
3. Identify steering and suspension requirements.
4. Identify braking system requirements.
5. Identify exhaust system requirements.
6. Identify glazing and windshield wiper requirements
7. Identify emission requirements
8. Identify accessory requirements
9. Identify lighting requirements

### **Program Outcomes:**

1. Students will demonstrate the ability to use an automotive scan tool and a multi-meter to retrieve information and diagnose a modern automobile.
2. Students will work in teams to complete the disassembly and reassembly of automotive assemblies in selected course areas.
3. Students will demonstrate the use of precision measurement tools such an outside micrometer and a torque wrench.
4. Students will complete all assigned lab worksheets on modern automobile systems.
5. Students will successfully complete a Shop Safety Course.

## **VI. EVALUATION:**

**by multiple choice, fill-in-the-blank or true/false tests:**

### **Laboratory Practice (Shop instructor observation)**

1. Participate in the removal and replacement of exhaust system parts.
2. Participate in the diagnosis of part wear and failure.
3. Participate in the repair and replacement of the suspension parts.
4. Participate in the use of exhaust emissions testing equipment.
5. Participate in repairing steering assemblies.
6. Participate in replacing and adjustment of lamps.
7. Participate in the inspection of seat belt assemblies.
8. Participate in practice state vehicle inspections.
9. Participate in the alignment of steering and suspension.
10. 75% of the students will be able to complete these assignments

## **VII. The Following General Education Objectives Will Be Addressed in This Course:**

Communication  
Learning Skills  
Critical Thinking  
Interpersonal Skills and Human Relations  
Understanding Science and Technology