

## **PURPOSE OF THE CONTEST**

To provide competitors with the opportunity to demonstrate their skills and knowledge in the Automotive Service Technology field through practical and theoretical application.

Build the competitor's confidence by enhancing their knowledge and encouraging a healthy attitude toward discovering and managing future challenges.

Challenge the competitors with several real-life automotive situations in an effort to make the students aware and prepared for Post-Secondary education.

Promote friendly competition and a healthy positive attitude by providing a safe and fair contest environment that measures success, ability and effort.

**Automotive Skills Competition has a Maximum number of competitors which will be capped at 16 students, any student showing up that is not registered will not be allowed to compete in the competition.**

## **Skills and Knowledge to be Tested**

Practical                      75%

Theory                              25%

### **A. Brakes, Steering and Suspension**

- Safety
- Component ID
- Inspection and testing
- Disassembly and assembly
- Fabricating metal brake lines
- Adjustments and diagnostics
- Use of micrometer, drum gauge and torque wrench, Metric and SAE
- Follow system information and specifications and record findings

## **B. Electrical**

- Work safely
- Component ID
- Reading and understanding electrical schematics
- Using component and splice locators
- Proper use of a test light, logic probe, Digital Volt Ohm Meter (DVOM)
- Circuit testing, diagnosis and calculations (series, parallel, and combined circuits)

## **C. Body Functions/Vehicle Performance**

- Work safely
- Using Bi-Directional scanners to diagnose body, ABS and network malfunctions
- Component ID and location
- Testing and diagnosis
- Using automotive tools, multi-meters, non-intrusive probing
- Repair strategy and tactics
- Recording findings

## **D. Engine Systems**

- Work safely
- Component ID and location
- Component measurement
- Displacement calculations
- Disassembly and assembly procedures
- Component failure diagnosis
- Recording findings

**Any components of an Internal Combustion Engine may be used to complete and assess the Engine Systems Section.**

### **E. Manual Transmissions**

- Work safely
- Component ID
- Component Measurement
- Ratio Calculations
- Disassembly and Assembly Procedures
- Recording Findings

### **F. Written Exam**

- 50 Questions
- Trade practices
- Engine Systems
- Steering Suspension and Brakes
- Driveline
- Vehicle Performance
- Electrical

## **EQUIPMENT AND MATERIALS**

Loyalist College will supply the following

- Vehicles
- Components and materials
- Necessary reference materials.
- Hand and power tools including precision measuring, lifting, supporting, pneumatic, electric and electronic tools.

### **Exception for above Equipment and Materials**

Competitors will be allowed to bring a scan tool of their choice for retrieving and diagnosing vehicle code information if they choose, otherwise Loyalist College will provide the Scan tool equipment

### **Supplied by Competitor:**

Competitors will supply their own personal protective equipment (refer to the Safety Section below).

No competitor-supplied tools are required for this competition, with the exception of a scan tool if the competitor chooses. Any competitor bringing tools other than a scan tool will be asked to remove them from the contest area.

## **SAFETY**

Safety is a priority at the Loyalist College Skills Competition. At the discretion of the judges and technical chairs, any competitor can be removed from the competition site for not having the proper safety equipment and/or not acting in a safe manner.

1. It is mandatory for all competitors to wear CSA approved eyewear (including side shields, prescription eyewear must have side shields).
2. It is mandatory for all competitors to wear CSA approved footwear.
3. Jewelry such as rings, bracelets and necklaces, or any items deemed unsafe by competition judges, shall be removed.
4. Proper shop attire is to be worn (no loose straps, baggy sleeves). Long hair is considered a safety hazard and must be tied back. Any attire, that is deemed unsafe by competition judges, will not be permitted.

***\*Competition judges will have final authority on matters of safety***

## **JUDGING**

<b>JUDGING CRITERIA</b>	
A. Brakes, Suspension & Steering	15%
B. Electrical	15%
C. Body Functions/Vehicle Performance	15%
D. Engine Systems	15%
E. Manual Transmissions	15%
F. Technical Knowledge Written Test	25%
<b>Final Mark</b>	<b>/100%</b>

**\*Note:**

**All contest areas will use objective marking only. A required task must be completed in order to obtain a score. No part marks will be awarded.**

*Example – Task A – Remove, replace and torque wheel assembly = 5 marks.*

*Result – Competitor removes and replaces wheel assembly without torqueing = 0 marks.*

**There are no ties, if the score is even after the contest, two resolutions will be applied:**

**1<sup>st</sup> tie breaker. The written test component will be used as the tie breaker.**

**2<sup>ND</sup> tie breaker. Highest and lowest practical marks are thrown out and the highest average of the remaining marks will deem the winner.**

## **RULES AND REGULATIONS**

Please be sure to review all rules and regulations in the Complete Competitor Information Package.

Immediate disqualification may occur at the discretion of the technical chair if a competitor displays any one of the following:

- Using a cell phone
- Acts inappropriately
- Shows disregard for the safety of themselves or those around them
- Breaks the established rules and regulations including:
  - Uses equipment or material that is not permitted
  - Dishonest conduct (cheating)
  - Speaks with those outside the contest area
  - Arrives to the contest site late

## **CLOTHING REQUIREMENTS**

Competitors are to be dressed in appropriate clothing for working in an automotive service environment that adheres to the safety requirements listed in the safety section of this document.