



17TH ONTARIO TECHNOLOGICAL SKILLS COMPETITION

AUTO SERVICE TECHNOLOGY - POST-SECONDARY AND SECONDARY LEVEL

This contest is proudly sponsored by: Snap-On Tools

CHAIR: Gene Ozon, Algonquin College – (*ozone@algonquincollege.com*)

**** Gold medal winners will advance to the Canadian Skills Competition.**

PURPOSE OF THE CONTEST:

Allow students to express their knowledge and abilities in the field of Automotive Service Technician. Build the students' confidence in the knowledge they already have and promote a healthy attitude toward discovering and managing future challenges. To display to the students several real life automotive repair situations in an effort to make the students better prepared to enter into the trade of Automotive Service Technician. Elevate self-esteem by applying knowledge, skills and learning ability. Promote friendly competition and a healthy positive attitude by providing a fair contest environment that measures success, ability and effort.

SKILLS AND KNOWLEDGE TO BE TESTED:

- **Brakes, Steering and Suspension**
 - Safety
 - Component ID
 - Inspection and testing
 - Disassembly and assembly
 - Fabricating metal brake lines
 - Adjustments
 - Diagnostics
 - Use of micrometer, drum gauge and torque wrench, Metric and SAE
 - Finding system information and specifications
 - Recording findings
- **Written Test**
 - 150 multiple choice questions
 - Questions will cover all aspects of repair and diagnosis of automobiles
- **Electrical**
 - Safety
 - Component ID
 - Reading and understanding electrical schematics
 - Using component and slice locators
 - Proper use of a test light, logic probe, Digital Volt Ohm Meter (DVOM)
 - Testing and diagnosis
 - Circuit calculations
 - Use of a calculator

- Recording findings
- **Body Functions**
 - Safety
 - Using By-Directional Scanners to diagnose body, ABS and network malfunctions
 - Using hand held oscilloscopes to test vehicle multiplexing problems
 - Recording findings
- **Vehicle Performance**
 - Safety
 - Component ID
 - Component location
 - Testing and diagnosis
 - Use of automotive tools, multi-meters, non-intrusive probing
 - Reading secondary Ignition patterns
 - Repair strategy and tactics
 - Recording findings
- **Drive Train**
 - Safety
 - Component ID
 - Component location
 - Power flow
 - Calculate gear ratios
 - Disassemble and assemble procedures
 - Maintenance and adjustment
 - Clutch operation
 - Fault diagnosis
- **Information Retrieval**
 - Using original equipment manufacture and aftermarket printed material to find repair information and parts
 - Prepare a work order to be used in a shop by a technician
 - Prepare a final invoice for presentation to a customer
- **Fabricating**
 - Use of common automotive hand tools
 - Precision measurements
 - Precision cutting (hacksaws, taps, dies, drilling and files)
 - Broken stud removal
 - Following instructions
 - Logical order of operation
 - Planning
 - Organizing
 - Time management
- **Engine**
 - Safety
 - Component ID
 - Inspection and testing
 - Precision measurements
 - Disassembly and assembly
 - Finding and applying technical data

EQUIPMENT AND MATERIALS:

Supplied by Committee:

- Vehicles
- Automotive components
- Materials, tools and reference materials necessary to perform the designed tasks

Supplied by Competitor:

- Shop coat or coveralls with no school identification or other advertisements
- Safety glasses
- Steel toe work boots

JOB INTERVIEW:

To assist competitors in fully preparing for their eventual job searches and to become valued employees, there will be a job interview incorporated into this contest. It is expected that the competitors arrive prepared WITH A RÉSUMÉ and be ready for interview questions and discussion. Interviews will last 5 minutes in length and be worth 5% of the overall mark. Feedback will be provided to the competitors in order to help prepare them for the real-life experience of job interviews.