Cariboo Regional Skills Competition

Scope Document

Automotive Service (Post-Secondary) (2026)

Thompson Rivers University
March 6, 2026

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Purpose of the Challenge:

To evaluate a student's performance in areas such as automotive theory and diagnosis and repair of automotive systems.

Skills & Knowledge to be Tested: The competition topics MAY include:

1. DRIVABILITY PROBLEM – FUEL / IGNITION / EMISSION

May Include:

a) Use of fuel pressure testing equipment.

b) Primary and secondary ignition scope pattern analysis (ignition scope will be connected to vehicle).

c) Use of "scan tool" to access data stream trouble codes and information.

d) Testing emission control devices or systems.

e) Use of service manuals or electronic information systems for accessing test procedures or technical data.

2. "MIL" LIGHT – DIAGNOSE CAUSE

May Include:

a) Use of "scan tool" to retrieve fault codes and/or clear codes.

b) Use of service manuals or electronic information systems for accessing test procedures or technical data.

3. ELECTRICAL SYSTEMS – LIGHT OR ACCESSORY CIRCUITS

May Include:

a) Visual inspection of components and/or wiring/connection integrity.

b) Use of digital “D.V.O.M.” for testing components and/or wiring/connection integrity.

c) Use of service manuals or electronic information systems for accessing test procedures, wiring schematics or technical data.

4. CRANKING SYSTEMS – DIAGNOSIS

May Include:

a) Use of “A.V.R.” tester for battery, alternator, starter and circuit testing.

b) Use of digital “D.V.O.M.” for “voltage drop” testing and/or wiring/connection integrity.

c) Use of service manuals or electronic information systems for accessing test procedures or technical data.

5. TOOLS AND EQUIPMENT – FABRCATION

May Include:

a) Select and operate appropriate fabricating hand tools

b) Select and operate appropriate fabricating shop equipment

6. BRAKES – INSPECT, EVALUATION AND REASSEMBLY

May Include:

a) Visual inspection or parts and written recommendations.

b) Use of applicable measuring tools (micrometer, calipers, drum gauge, etc.).

c) Reassembly of brake system.

d) Use of service manuals or electronic information systems for accessing test procedures or technical data.

e) Multiple choice questions for identifying various automotive components and tools.

7. WHEELS, TIRES AND HUBS

May Include:

a) Mounting and balancing tires

b) Repairing tire punctures

c) Measuring and analyzing tire wear

d) Suspension Diagnosis

8. THEORY EXAM

May Include:

a) Multiple choice questions that include questions from all automotive mechanical systems and servicing techniques.

9. ENGINE BLOCK – COMPONENT INSPECTION AND MEASUREMENT

May Include:

a) Visual inspection of parts and written recommendations.

b) Use of applicable measuring tools (bore gauge, micrometers, calipers, etc.).

c) Use of service manuals or electronic information systems for accessing test procedures or technical data.

10. C.V. JOINT – DISASSEMBLE, INSPECT, REASSEMBLE

May Include:

a) Use of hand tools required to disassemble and reassemble component.

b) Visual inspection of parts and written recommendations.

c) Use of service manuals or electronic information systems for accessing test procedures or technical data.

Safety Instructions:

Safety awareness/requirements will be maintained within minimum industry standards at all times. A contestant will not be allowed to compete without the safety equipment noted on this document.

Equipment / Tools / Materials

Supplied by Committee:

- All necessary tools and equipment

Supplied by Contestant:

- Safety footwear (CSA approved or similar)
- Safety glasses
- Coveralls

Judging / Distribution of Marks

Each student will be evaluated on:

a) Diagnosis / Repair / Adjustment procedures and sequences (20 points)

b) Accuracy of Diagnosis / Repairs / Adjustments (20 points)

c) Correct use of equipment and tools (20 points)

d) Correct Safety Procedures (20 points)

e) Efficient use of written and electronic information systems (20 points)

Total 100 points Note: If Theory Exam is used it will be based on 100 points

Technical Committee:
Technical Chair: Cam Jepsen (cjepsen@tru.ca)