

## 2012 Wood Buffalo Regional Skills Canada Competition

### Scope Document

Fort McMurray Composite High School

April 19 & 20, 2012

<b>EVENT:</b> Auto Service Junior Level/ Outdoor Power and Recreation Equipment – Small Engines	<b>LEVEL:</b> Secondary
<b>TIMES:</b> April 19: Orientation 8:15 AM; Competition Starts 9:00 AM April 20: Competition Starts 8:30 AM Lunch on April 20 <sup>th</sup> will be provided at Keyano College Elements Meeting Room.	<b>LOCATION:</b> Room 28 Fort McMurray Composite High School
<b>DURATION:</b> 12 Hours (two days)	Competitors in this event will not be qualifying for the 2012 Provincial Skills Canada Competition (PSCC). Schools can directly register a competitor for the PSCC in the event area of Outdoor Power & Recreation Equipment. Should a competitor want to compete in a qualifying Regional Competition for Auto Service, please contact Alycia Pawluk ( <a href="mailto:alyciap@skillscanada.com">alyciap@skillscanada.com</a> ) for further details. Registration for the PSCC opens on February 27 <sup>th</sup> , 2012 @ 8:00am. Please refer to the website ( <a href="http://www.skillsalberta.com">www.skillsalberta.com</a> ) for more information.

#### GENERAL DESCRIPTION

Competitors explore the world of small engine and recreation vehicle repair by completing relevant projects. The competition involves a theory exam and practical test.

The practical component will cover diagnostics to maintenance by having competitors cycle through various workstations.

This event is composed of 6 stations covering the following areas:

- ⇒ Written theory exam
- ⇒ Electrical diagnostics and repair (knowledge of basic electrical, use of test light, DVOM)
- ⇒ Kinaesthetic skills (cutting, drilling, flaring, filing etc.)
- ⇒ Component measurement and part identification (Briggs and Stratton 1 cylinder engines)
- ⇒ Engine disassembly and reassembly (torque bolts to specifications)
- ⇒ Equipment maintenance and adjustments on: ATV, outboard motor, snowmobile, and lawn and garden equipment

#### Purpose of the Challenge:

- To test each student's skill and knowledge in the areas of inspection, measurement, maintenance and repair of small engines and recreational vehicles.

#### EQUIPMENT & MATERIALS

##### Equipment and Materials Competitors Must Supply:

- ⇒ CSA Approved Steel toed boots/shoes

### Equipment and Materials Supplied by the Committee:

- CSA Approved Safety glasses,
- Lab coat/overalls
- All the necessary tools will be supplied to perform the various tasks.
- Please note that competitors may bring additional tools if they wish e.g. preferred engine assembly tools (piston ring compressor) or digital volt ohm meter.
- \* Competitors are responsible for the security of their possessions.

### Clothing Requirement

Appropriate work clothing must be worn to compete. All clothing must be neat and clean and free of rips and tears. Casual wear such as shorts will not be permitted. No loose fitting clothes or jewellery.

### SAFETY

The health, safety and welfare of all individuals involved with Skills Canada Regional Competitions are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

### JUDGING CRITERIA

- Students will perform tasks that will be judged using a rubric compiled by the committee.
- Students will record findings based on measurements using specialized tools, such as multi-meters, and precision measuring tools.

### TIE BREAKING PROCESS

- The highest score on written exam will determine the tie.

### RELATED CAREER AND TECHNOLOGY STUDIES COURSES

Descriptions of all modules are located at the following website:

<http://education.alberta.ca/teachers/program/cts.aspx>

MEC 1010 Modes and Mechanisms  
MEC 1020 Vehicle Service and Care  
MEC 1040 Engine Fundamentals  
MEC 1090 Electrical Fundamentals  
MEC 1110 Surface Preparation 1  
MEC1130 Mechanical Systems  
MEC 1150 Ride and Control Systems

\* All competitors must be able to use the following equipment:

- ⇒ Multimeter
- ⇒ Test light
- ⇒ Soldering iron
- ⇒ Micrometer (metric and imperial)
- ⇒ Telescoping bore gauges
- ⇒ Tap and dies
- ⇒ Tube bending and flaring tools
- ⇒ Specialized engine assembly tools (i.e. piston ring compressor, flywheel puller)

Any additional information requirement; [mark.wilson@fm-psd.ab.ca](mailto:mark.wilson@fm-psd.ab.ca)



#### **ADDITIONAL INFORMATION**

[Parking Information & Venue Maps](http://keyano.ca/current-students/parking) - <http://keyano.ca/current-students/parking>

Awards Ceremony will be held in the [Keyano College Recital Theatre](http://keyano.ca/current-students/maps) - <http://keyano.ca/current-students/maps>

#### **COMMITTEE MEMBERS**

Mark Wilson, Fort McMurray Composite High School

Greg Harper

Dave Wood

Richard Ferguson