



## 2011 Secondary Regional Technological Skills Competition

Friday, March 25, 2011  
St. Mary's High School  
555-15<sup>th</sup> Street E, Owen Sound, ON

### Electrical Wiring — Secondary Level

Winner may advance to the Skills Ontario Competition in the Electrical contest

#### **SAFETY RULES: see attached Georgian College waiver**

*Safety is a priority at the Secondary Regional Technological Skills Challenge. Any student 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 students to wear CSA approved eyewear (including side shields for prescription eyewear).*
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 the judge, shall be removed for the competition.*
4. *Proper shop attire is to be worn (no loose straps, baggy sleeves). Any attire, that is deemed unsafe by the judges, will not be permitted.*
5. *Judges have final authority on matters of safety.*

#### **PURPOSE OF CHALLENGE:**

1. To evaluate competitors' abilities and techniques, and
2. To recognize outstanding performances and professionalism in the field of residential electrical wiring.

#### **SKILLS AND KNOWLEDGE TO BE TESTED:**

Competitors will be expected to perform competently in all aspects of residential wiring installations with respect to the following:

1. Perform the assigned task from given drawings and specifications, and
2. All work must conform to the rules and regulations of the Ontario **Electrical Safety Code (Current Code)**

The assigned task will require a thorough working knowledge in any or all of the following aspects relating to residential electrical wiring:

1. Safety rules and practices in the electrical construction field,
2. Proper use of all tools, materials and equipment that are used in the installation,
3. Basic electrical theory including mathematical calculations, circuitry, chemistry, physics, schematics, blueprints, and all types of electrical measurements,
4. Application and interpretation of the Ontario Electrical Safety Code,
5. Installation of service entrance and service equipment,
6. Installation of all types of outlet boxes and related equipment and devices, and/or
7. Trouble shooting of the installation if any problems arise.

Competitors should have a basic knowledge of various wiring types and methods (NMSC, EMT, BX, PVC) and practices in the residential wiring field.



### **CLOTHING REQUIREMENTS:**

#### **Competitors must provide the following:**

- Steel-toed work boots, safety glasses or safety goggles (CSA Approved)
- Prescription glasses must have side guards or they must be covered by safety goggles, hard hat
- Dark blue work shirt, dark blue work pants or blue jeans, OR dark blue pair of coveralls

### **EQUIPMENT AND MATERIALS:**

#### **Provided by the Competitor:**

- Pencil
- ¾" wood chisel
- 1 Electrician's knife
- Round or half round file
- cordless drill
- 1 cable stripper
- 1 roll black tape
- ½ " to 1 ¼" wood bits
- assorted metal drill bits
- Allan keys – metric and imperial

These tools are required to do the assigned tasks. Please bring only the tools listed. All other required equipment/materials will be supplied. Unibits are allowed, but not essential.

### **JUDGING CRITERIA:**

Practical portion will consist of various wiring tasks to be completed within a set time limit.

### **RESUME/JOB INTERVIEW:**

Y Employment Services will be available to students who require assistance preparing resumes and interview skills for the Ontario Skills Competition. More information will be available in the winners' package.

### **CONTACT:**

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# GEORGIAN

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## (2011 SECONDARY REGIONAL TECHNOLOGICAL SKILLS CHALLENGE)

- Never wear loose clothing around machines, remove hats, vests, ties and roll sleeves to the elbows.
- Do not wear rings, watches, or jewellery etc. which could become tangled in machinery.
- Long or loose hair must be tied back or covered.
- Do not attempt to operate any machine before you fully understand how it works, and be sure you know how to stop a machine before you start it.
- Always stop a machine before measuring, cleaning, oiling or making any adjustments.
- Never operate a machine unless all safety guards are in place.
- Do not attempt to stop a machine with your hands e.g. drill press spindle or lathe chuck.
- Do not use shop rags near moving parts, e.g., drill press spindle, mill cutters or lathe chucks.
- Store used shop rags in proper containers or storage areas.
- Always keep the floor clear of oil, grease, tools and metal cuttings.
- Avoid horseplay.
- Never have more than ONE, (1) person operating a machine at a time, and do not crowd the working area.
- If the lift is heavy, get help to avoid back strain.
- It is the student's full responsibility to wear safety glasses at all times while in the shop.
- It is the student's full responsibility to wear safety boots, or safety shoes at all times while in the shop.
- Any student not wearing approved safety equipment will be dismissed from class.

**AGREEMENT:**

I, \_\_\_\_\_ understand the safety regulations and the requirement to wear safety  
**(Please Print)**  
 glasses, safety boots or shoes, at all time in the shop.

\_\_\_\_\_  
 Signature of Student/Competitor

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Parents/Guardians\*\*

\_\_\_\_\_  
 Date

\*\* If you are under 18 years of age, permission by a parent/guardian is required to participate