



# 2012 15<sup>th</sup> ANNUAL SKILLS MANITOBA COMPETITION CONTEST SCOPE

**CONTEST NAME:** Website Development

**CONTEST NO:** 17

**LEVEL:** Secondary & Post Secondary

**MAXIMUM NUMBER OF COMPETITORS:**

- Post-secondary – 8 students
- Secondary – 8 students

**CONTEST LOCATION:**

**Red River College – The Roblin Centre**

160 Princess Street

Winnipeg, Manitoba

R3B 1K9

Computer Lab/Room to be determined at a later date

**CONTEST START TIME AND DURATION:**

Contest Date: **Thursday, April 12th, 2012**

Orientation: **7:45 AM**

Contest: **8:00 AM – 11:30 AM** [Mandatory Lunch Break] **12:00 PM – 2:00 PM**

Total Hours: **5.5**

**PURPOSE OF CHALLENGE:**

To provide competitors the opportunity to test themselves in real world web development skills. The level of knowledge and skill to win this competition is high. This is not so much a design competition, but a development competition.

Note: Scope is subject to change due to equipment availability and/or at the discretion of the technical committee chairperson(s).

## SKILLS AND KNOWLEDGE TO BE TESTED:

- Competitors will be tested on their ability to develop a web site for display on an internet server via a web browser to a minimum standard XHTML 1.0 Transitional with CSS 2.0.
- Competitors will produce a fully functional web site that will display specific information (the project information will be provided at the competition).
- Students will need to have strong knowledge of XHTML 1.0, CSS 2.0, and PHP / MySQL database connectivity. (PHP / MySQL database connectivity knowledge is optional for secondary school competitors.)

**Note** - Not optional at Skills Canada Competition

- Knowledge of JavaScript, and/or jQuery is required (optional task for secondary school competitors).
- Students should have the knowledge of how to develop web page templates using graphic design tools.
- Students must have the skills to take this knowledge and develop a site that displays data stored in an existing database and allows authorized users to modify data in the database. (Database connectivity knowledge is optional for secondary school competitors.)

**Note** - Not optional at Skills Canada Competition)

**Note** - *Students will not be required to build the database. Skills Canada National Competition requires competitors to construct the database.*

- This will require knowledge of how XHTML, PHP, and MySQL work together. Competitors will need to know how PHP connects to the database, selects data, and formats and displays the data using XHTML. Competitors will also need to know how to use XHTML forms and PHP server side scripts to add to a MySQL database table. PHP and MySQL are chosen because they are available free under public license to educational institutions and students. They will run on web server platforms including Windows 7, Windows XP, UNIX, Linux, and Mac OS X Server. Competitors can learn operations on a single computer with Apache, PHP and MySQL (WAMP, XAMP, LAMP, or MAMP) properly configured, by using localhost as the domain. Any student or instructor wanting technical assistance is welcome to contact the technical committee, but this should be undertaken as early as possible. No technical assistance will be given in the two weeks prior to the competition.

**Note** - Database connectivity knowledge is optional for secondary school competitors

- Some useful links are: <http://ca.php.net/tut.php>  
<http://www.w3schools.com/php/default.asp>  
<http://www.w3schools.com/sql/default.asp>

## POINT BREAKDOWN (1000 POINTS):

### Post Secondary

This section includes a general description of the point breakdown. A more specific breakdown will follow with the problem document. Please note that the criteria in which students are judged on is at a higher level in the post-secondary competition.

#### Visual Design: 300

- Includes layout, typography, visual hierarchy, and other elements of graphic and interface design
- Cross-browser compatibility

**Technical Elements: 300**

- Includes proper syntax in XHTML 1.0 Transitional, CSS 2.0, PHP, and JavaScript code statements
- Use of comments and alt tags
- Construction of XHTML form and table
- Function and ease of use
- Cross browser support

**Database Connectivity: 300**

- Use of proper SQL syntax in PHP scripts
- Read and write functionality to the database
- Proper error handling and reporting
- Relevant data and correct use of data-types

**Client Side Scripting: 100**

- Use of JavaScript or jQuery plug-in(s) in site (form validation, menus, font-size option, etc)

**Secondary**

This section includes a general description of the point breakdown. A more specific breakdown will follow with the problem document. Please note that the criteria in which students are judged on is at a higher level in the post-secondary competition.

**Visual Design: 400**

- Includes layout, typography, visual hierarchy, and other elements of graphic and interface design
- Cross-browser compatibility

**Technical Elements: 400**

- Includes proper syntax in XHTML 1.0 Transitional, CSS 2.0 tags, PHP, and JavaScript code statements
- Use of comments and alt tags
- Construction of XHTML form and table
- Function and ease of use
- Cross browser support

**Optional Element: 200 (Choose one)**

- Use of JavaScript or jQuery plug-in(s) in site (form validation, menus, font-size option, etc)
- Database Connectivity:
  - Use of proper syntax in PHP scripts
  - Read and write functionality to the database
  - Proper error handling and reporting
  - Relevant data and correct use of data-types

### **EQUIPMENT, TOOLS, MATERIALS TO BE PROVIDED BY COMMITTEE:**

- Pencils and Paper
- Windows based computers – specs not available at this time
- Web server running PHP and MySQL versions not available at this time
- jQuery library – Along with access to the code for various plug-ins
- Web server running PHP and MySQL versions not available at this time
- Current, supported version of Adobe website production software
- HTML Editors (that may be included):
  - HTML Kit
  - Notepad ++
  - EditPlus
  - UltraEdit
  - Textpad
  - Metapad
  - PHP Designer
- Web Browsers – Internet Explorer, Firefox, Chrome, Safari
- Versions and software subject to change. The specific lab setup cannot be presented at this time. Details will be updated as soon as information is available.
- Competitors with specific software requests should make them immediately for them to be taken into consideration.

### **EQUIPMENT, TOOLS, MATERIALS TO BE SUPPLIED BY COMPETITOR:**

- Portable audio players allowed, subject to inspection
- Headphones
- Cell Phone connections are strictly prohibited. Cell phones with music player functions will be permitted provided the phones are set to “airplane-mode”

### **WORKSITE SAFETY RULES / REQUIREMENTS:**

- No food or beverages at workstations exception for water in closed containers
- No outside resources, books, web pages, data storage devices allowed
- Portable audio players allowed, subject to inspection. No devices of any kind may be connected to workstations
- No headwear, no logos or trademarks on clothing. See provincial competitor guidelines

### **NATIONAL COMPETITION ELIGIBILITY:**

- A mark of **70% or higher** must be scored by the gold medalist in each contest in order for them to attend the National Skills Competition

**FOR MORE INFORMATION PLEASE CONTACT:**

**TECHNICAL COMMITTEE**

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**Vacant (High School)**