

## ***Contest Description***

<b>COMPETITION DATE:</b> April 24, 2021	<b>CONTEST AREA NAME:</b> Web Technologies
<b>CONTEST AREA NUMBER:</b> 17	<b>LEVEL:</b> Secondary
<b>DURATION OF CONTEST:</b> 6 hours	<b>LOCATION:</b> At Home / Zoom

## **CONTEST INTRODUCTION**

### **Purpose of the Challenge**

Every day we rely on web sites and online applications to find information, connect with friends and family, entertain us, and to learn. Web site development involves the creation of web sites and Internet applications that provide us with all of these benefits and more. Information Technology (IT) professionals and specialists are in great demand, and web technologies have become increasingly important skills with exciting opportunities for careers in many fields. The purpose of this challenge is to provide an opportunity for students to demonstrate their knowledge and skills in the many facets of web technologies.

### **Skills and Knowledge to be tested**

This competition will test the competitor's knowledge and skills of the following:

- Graphics for the web
- Web design principles
  - Colours, typography, structure, etc.
  - HTML and CSS
- Client-side programming with Javascript
- Server-side programming with PHP
- Database transactions

## CONTEST DESCRIPTION

The Web Technologies contest will present competitors with a series of independent modules – all related to some aspect of web development. Examples include the design of a web layout or graphics, the creation of responsive pages, or the coding of front/backend web elements.

DOCUMENT	DATE OF DISTRIBUTION VIA WEBSITE
Software setup list for home computer	February 2021
Test Project	Competition start date

Tasks that may be performed during the contest include:

### Client-side coding – may include the following functions:

- Design a web site using HTML 5
- Utilize CSS 3 to standardize the theme/layout of the website
- Utilize JavaScript libraries to enhance site interactivity
- Utilize Twitter Bootstrap for your responsive design
- Ability to optimize web pages for the display on current web browsers and/or mobile devices that support the latest standards and various resolutions.
- Design that complies with W3C standards (<http://www.w3.org>) and considers accessibility standards
- Utilize AJAX (latest standards) to create asynchronous Web functionality

### Images

- Graphics/Images - Create, edit, and optimize for the web

### DOM Manipulation

- Use JavaScript to append, modify or remove DOM elements

### Interactivity

- Use JavaScript and jQuery to add elements to the web site that enhance interactivity.

### **Server-side Programming**

- Create and/or modify a server-side application coded in PHP, MySQL (Example CMS, image gallery, membership application, shopping cart, product catalogue)
- Use a database to store, view, and update information that is displayed on a web site.

### **EQUIPMENT, MATERIAL, CLOTHING**

Equipment and Material supplied by Skills Canada-Newfoundland and Labrador

- Suggested Software List
- Test Project

Equipment and Material Competitor must supply:

- Computer workstation running
  - Current Operating System (Windows, MacOS)
  - Google Chrome
  - Software as outlined in Suggested Software List
- High-speed internet connection

Required clothing (Provided by competitor)

- Not applicable.

### **SAFETY REQUIREMENTS**

The health, safety and welfare of all individuals involved with Skills Canada NL are of vital importance. Safety is a condition of participation 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.

## EVALUATION/JUDGING CRITERIA

### Point Breakdown

POINT BREAKDOWN	/1000
Module A – Web Design	
- Look and feel of design	200
- Appropriate use of correct HTML tags	50
- Responsive Design on smart phone, tablet, fullsize computer	150
- Responsive Menu (hamburger style on phone)	50
- Use of Twitter Bootstrap	50
Module B – Multi Tech Challenge	
- Use of HTML	125
- Use of Javascript	110
- Use of PHP	115
- Image Manipulation	50
- Use of CSS	100

## ADDITIONAL INFORMATION

### Competitor Responsibilities

Competitors will need to ensure their home computer and software is all running correctly prior to the start of the competition.

### Software and computer requirements

If special software and/or computer system requirements are necessary to accommodate a competitor with special requests or needs, the Skills Canada Newfoundland and Labrador office must be advised as far in advance as possible. Please note that last minute requests may not be guaranteed.

### Tie (No ties are allowed)

In case of a situation in which the competitors are tied in total competition points, the total marks from module B will be used to break the tie. If there is a tie in Module B, then the highest score on 'Use of PHP' will be taken followed by highest score on 'Use of Javascript'.

## Competition Rules

Please refer to the competition rules for all general SCPC information.

## PROVINCIAL TECHNICAL COMMITTEE MEMBERS

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