



## ***TEACHER ASSESSMENT BLUEPRINT***

### **WEB DESIGN**

**Test Code: 5944**

**Version: 01**

#### ***Specific Competencies and Skills Tested in this Assessment:***

##### **Internet Basics**

- Describe the process of information exchange between web server and client
- Describe the use of web browsers and various clients within a given context of use
- Explain ways to access the Internet
- Search for information on the Web
- Identify the tools required for web publishing
- Describe different types of web pages and their uses
- Describe the function and components of a URL; how it relates to protocols, addresses, and ports

##### **Programming, Markup, and Scripting**

- Describe the difference between popular client-side and server-side programming languages
- Demonstrate the ability to create HTML5, HTTPS, XHTML, and XML pages
- Demonstrate the ability to use third-party programming interfaces
- Use CSS3 to differentiate between logic, content, and presentation
- Describe the difference between a scripting language and a markup language

##### **Editors**

- Create a website
- Design and implement tables and templates
- Create and use interactive forms
- Enhance site elements by using style sheets
- Design and implement layers, image maps, and navigation bars
- Enhance a website with media objects and images

##### **Web Graphics**

- Identify and use graphics file formats common to the Internet
- Differentiate between raster and vector images
- Use basic photo editing tools
- Prepare digital images for use on the Web

## ***Web Design (continued)***

### **Web Multimedia**

Add interactive media to a website through the use of rich Internet applications

Export video output suitable for use on the Web

Implement multimedia on the Web

### **Web Marketing and Business Management**

Explain the issues involved in copyrighting, trademarking, and licensing

Identify the issues related to working in a global environment

Identify aspects of marketing related to social media

Define web-related mechanisms for audience development; attracting/retaining an audience

Define e-commerce terms and concepts

### **Site Design**

Describe web design principles

Describe the mechanics behind mobile websites and how they differ from non-mobile sites

Describe design tenets associated with Web 2.0 (e.g., interactive information sharing, interoperability)

Explain various project management techniques to set goals and perform needs assessment

Describe the principles behind usable navigation

Identify problems related to legacy clients

Describe the mechanics behind dynamic websites and how they differ from static sites

Incorporate data/objects held in a relational database into a web page

Design for accessibility (e.g., ADA-Section 508 and Web Content Accessibility Guidelines)

### **Administration and Maintenance**

Describe the process of pre-launch and post-launch functionality testing (e.g., quality assurance)

Describe content management tools

Identify hosting resources and domain management

Utilize search engine optimization techniques

Describe the concepts of server log analysis and benchmarks

Back up data related to website

***Web Design (continued)***

**Written Assessment:**

Administration Time: 3 hours

Number of Questions: 164

***Areas covered:***

13%	Internet Basics
13%	Programming, Markup, and Scripting
15%	Editors
9%	Web Graphics
6%	Web Multimedia
13%	Web Marketing and Business Management
19%	Site Design
12%	Administration and Maintenance

***Sample Questions:***

The role of a web server is to

- A. allow a client to preview the web pages as live view
- B. assemble a web page as a response to a client request
- C. manipulate data on a remote server
- D. execute programs on a remote server

Which of the following facilitates interoperability among applications?

- A. proprietary protocol
- B. application programming interface
- C. firewalls
- D. framing

A skeleton of an HTML file is also known as a/an

- A. template
- B. archive
- C. site map
- D. storyboard

A geometric graphic is sometimes called a \_\_\_\_\_ graphic.

- A. vector
- B. type
- C. bitmap
- D. pixel

## **Web Design (continued)**

Copyright registration is administered by which government agency?

- A. Internal Revenue Service
- B. Office of Compliance
- C. National Security Agency
- D. Library of Congress

## **Performance Assessment:**

Administration Time: 3 hours

Number of Jobs: 5

### **Areas Covered:**

20%

#### **Create a Cascading Style Sheet (CSS)**

*Participant will create a cat.css file and place it in the web folder, write a CSS rule for the body tag, heading 1 tag, heading 2 tag, block quote tag, table tag, and for the pseudo-class statement for the links.*

28%

#### **Create a Template**

*Participant will create a template file and link the CSS file, place a table on the template page and assign the correct table properties, place a page heading on the page, place and center an image on the page, prepare a graphic navigation bar, enter placeholders, enter the text navigation bar, enter links for navigation bar, enter the copyright information, and enter the last updated information.*

11%

#### **Create a Home Page**

*Participant will create an index.html file and link CSS and template files, place the page title and heading, place the text content, format the headings and paragraphs, complete text changes, links, and formatting, and place an image on the page with the appropriate properties.*

30%

#### **Create Content Pages**

*Participant will create history.html, description.html, characteristic.html, temperament.html files, and link CSS template files, place the page title and heading, place the text content on the pages, and place and format the images on the pages according to instructions.*

11%

#### **Create a Newsletter Page**

*Participant will create newsletter.html file and link CSS and template files, place a title page and heading, place the form on the page and insert a line of instruction, place text fields on form and set form action, and validate all form fields.*

***Web Design (continued)***

***Sample Job:*** Create a Cascading Style Sheet (CSS)

***Maximum Job Time:*** 40 minutes

***Participant Activity:*** The participant will have 20 minutes to review website design documents. In the remaining 20 minutes, the participant will create a CSS file, place it in the Web Design Documents folder and using the information from the website storyboard, write the CSS rules for: body, headings, block quote, table, and pseudo-class statement. Participant may return to file and make adjustments as needed.