Domain 1: HTML5 Essentials

1.1 Consider HTML5 development skills you can apply to both traditional and non-traditional delivery platforms, including mobile apps.

1.2 Identify the Web development trifecta and explain its significance.

1.3 Explain the evolution of HTML and its relevance to modern design techniques.

1.4 Create and deploy HTML5 structure tags.

1.5 Perform HTML5 code validation, which includes explaining the practical value of code validation and listing the steps to validate HTML5 code.

1.6 Explain the importance of universal markup creation.

1.7 Apply the HTML5 <video> element appropriately.

1.8 Use the HTML5 <audio> element.

1.9 Define common elements of HTML5 application programming interfaces (APIs).

Domain 2: Using Cascading Style Sheets (CSS) Technology

2.1 Explain the function and purpose of the Cascading Style Sheets (CSS) technology.

2.2 Explain the importance of using style guides when designing sites and documents.

2.3 Define common CSS terms and syntax.

2.4 Apply CSS styles to format pages.

2.5 Develop and apply page layouts with CSS.

2.6 Use CSS to position content and apply document flow.

2.7 Define common CSS positioning schemes.

2.8 Use the CSS Box Model.

Domain 3: Introduction to CSS Version 3 (CSS3)

3.1 List the features added to CSS functionality in CSS version 3 (CSS3).

3.2 Apply common CSS3 properties and selectors.

3.3 Apply backgrounds and borders with CSS3.

3.4 Apply fonts and text effects with CSS3.

Domain 4: Using Advanced CSS3 Techniques

4.1 Apply 2D and 3D transformations with CSS3.

4.2 Apply transitions and animations with CSS3.

4.3 Create accessible user interfaces with CSS3.

4.4 Create menus and buttons with CSS3.

4.5 Create transparencies and overlays with CSS3.

Domain 5: Introduction to JavaScript

5.1 Define scripting languages and explain their functionality in Web development.

5.2 Define JavaScript, describe its main features and uses, and list characteristics of JavaScript that affect Web developers and design.

5.3 Compare JavaScript to other languages used in Web development.

5.4 Embed JavaScript code into HTML5 documents.

5.5 Define the roles of JavaScript objects, properties and methods in scripting and programming.

5.6 Define the role of JavaScript variables in scripting and programming.

5.7 Define the role of JavaScript expressions and operators in scripting and programming.

Domain 6: JavaScript Events, Functions and Methods

6.1 Define user events, and identify and use JavaScript event handlers.

6.2 Describe the role of functions in JavaScript development.

6.3 Use JavaScript code to define functions.

6.4 Use JavaScript code to call functions.

6.5 Use methods as functions in JavaScript code.

6.6 Identify common errors in JavaScript.

Domain 7: Using HTML5 APIs

7.1 Define the Document Object Model (DOM).

7.2 Define application programming interface (API), and list the common HTML5 APIs.

7.3 Use the HTML5 Canvas API for advanced techniques.

7.4 Develop offline Web applications using the HTML5 AppCache API.

7.5 Use the HTML5 Geolocation API to obtain geographic information about a user.

7.6 Create drag-and-drop Web pages using the HTML5 Drag-and-Drop API.

7.7 Use the HTML5 File API to interact with files.

7.8 Use the HTML5 History API to manipulate a browser's history.

7.9 Retrieve and manipulate HTML5 data using XMLHttpRequest and jQuery.

Domain 8: Developing HTML5 Forms

8.1 Describe the purpose and functionality of HTML5 forms.

8.2 Develop cross-browser compatible forms using HTML5.

8.3 List the new form input types available in HTML5.

8.4 Use the HTML5 <datalist> element.

8.5 Explain the function of the HTML5 <keygen> element.

8.6 Explain the function of the HTML5 <output> element.

8.7 Use HTML5 global attributes for HTML form elements including <fieldset>, <legend>, <label>, <select> and <textarea>.

Domain 9: Completing, Submitting and Validating User Input Forms

9.1 Use HTML5 attributes for completing and submitting forms, including new attributes for the <form>, <input> and <button> elements.

9.2 Describe general concepts and techniques used to validate user input from forms.

9.3 Validate user input from forms using HTML5 attributes.

9.4 Validate user input from forms using JavaScript.

Domain 10: Designing for Mobile Devices

10.1 Compare "apps" to mobile Web sites.

10.2 Describe general concerns for developing Web documents that will be delivered on mobile devices.

10.3 Develop appropriate page layouts for use on mobile devices.

10.4 Create appropriate navigation elements and hyperlinks for mobile Web pages.

10.5 Use images appropriately on mobile Web pages.

10.6 Validate and test mobile Web pages.

10.7 Determine cross-browser compatibility for traditional and mobile Web pages.

10.8 Describe essential Responsive Web Design (RWD) techniques and principles.