

# Web Design and Development (2014)

## UNDERSTAND WEB PAGE DEVELOPMENT <sup>1</sup>

### 1 Use Standards-Compliant HTML to Create Basic Web Pages <sup>1.1</sup>

- 1 Describe how the Internet and the World Wide Web work. <sup>1.1.1</sup>
- 2 Investigate roles and responsibilities behind the development of a Web site. <sup>1.1.2</sup>
- 3 Understanding the Web design environment. <sup>1.1.3</sup>
- 4 Create conventions for filenames and URLs. <sup>1.1.4</sup>
- 5 Set a directory structure. <sup>1.1.5</sup>
- 6 Identify and use tags on a Web page. <sup>1.1.6</sup>
- 7 Document HTML code using comments. <sup>1.1.7</sup>
- 8 Save a text document as an HTML file. <sup>1.1.8</sup>
- 9 Specify Headings. <sup>1.1.9</sup>
- 10 Format Web page text. <sup>1.1.10</sup>
- 11 Insert HTML entities, superscripts, and subscripts. <sup>1.1.11</sup>
- 12 Create a horizontal rule. <sup>1.1.12</sup>
- 13 Create ordered and unordered lists. <sup>1.1.13</sup>
- 14 Learn where to place anchors on a Web page. <sup>1.1.14</sup>
- 15 Create links. <sup>1.1.15</sup>
- 16 Create links to email. <sup>1.1.16</sup>
- 17 Use the element. <sup>1.1.17</sup>
- 18 Use and image as a link. <sup>1.1.18</sup>
- 19 Organize files in your web directory. <sup>1.1.19</sup>
- 20 Understand paths and their application to links. <sup>1.1.20</sup>

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## **2 Use Styles to Format Web Pages** 1.2

- 1 Identify the differences between HTML and CSS. 1.2.1
- 2 Write CSS Styles. 1.2.2
- 3 Create an embedded style. 1.2.3
- 4 Understand and use the font property. 1.2.4
- 5 Control line spacing and white space. 1.2.5
- 6 Change foreground and background colors on a Web page. 1.2.6
- 7 Create and apply inline styles. 1.2.7
- 8 Use classes to style several tags. 1.2.8

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## **3 Demonstrate an Understanding of Advanced CSS Selectors and Properties** 1.3

- 1 Identify the differences between dependent and independent classes. 1.3.1
  - 2 Use external style sheets to format several Web pages. 1.3.2
  - 3 Understand how to position text on a Web page. 1.3.3
  - 4 Use CSS pseudo-elements. 1.3.4
  - 5 Use the tag. 1.3.5
  - 6 Create and apply an independent class. 1.3.6
  - 7 Use the tag. 1.3.7
  - 8 Investigate the box model. 1.3.8
  - 9 Explore the padding, margin, and border properties. 1.3.9
  - 10 Group links on a page. 1.3.10
  - 11 Identify the Pseudo-class selectors. 1.3.11
  - 12 Use CSS to style links. 1.3.12
  - 13 Create a stylized navigation. 1.3.13
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## **UNDERSTAND WEB PAGE DESIGN AND LAYOUT 2**

### **1 Demonstrate Understanding of Design Theory as it Applies to Web Design and Development 2.1**

- 1 Explore Web Design Fundamentals. 2.1.1
  - 2 Explore Design Theory. 2.1.2
  - 3 Understand graphics file formats (vector versus raster). 2.1.3
  - 4 Investigate graphics editors. 2.1.4
  - 5 Understand computer color basics. 2.1.5
  - 6 Control color properties with CSS. 2.1.6
  - 7 Optimize images for web use. 2.1.7
  - 8 Understand layering organization. 2.1.8
  - 9 Understand masking and channels. 2.1.9
  - 10 Understand typography use for the web. 2.1.10
  - 11 Understand ethical use of copyrighted materials. 2.1.11
  - 12 Use basic animation techniques. 2.1.12
  - 13 Practice industry acceptable aesthetic techniques. 2.1.13
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### **2 Enhance Web Pages with List, Images and Background-Images 2.2**

- 1 Control background images with CSS. 2.2.1
  - 2 Float and image or text. 2.2.2
  - 3 Control image properties with CSS. 2.2.3
  - 4 Understand and use the clear property. 2.2.4
  - 5 Change list style type and position. 2.2.5
  - 6 Format and float headings. 2.2.6
  - 7 Work with background properties. 2.2.7
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### **3 Demonstrate Understanding of and Use the Box Model 2.3**

- 1 Understand resolution as it applies to the Box Model. 2.3.1
- 2 Create boxes for layout. 2.3.2
- 3 Size and position boxes. 2.3.3
- 4 Determine how to control overflow for a box. 2.3.4
- 5 Understand padding, margins, and border properties. 2.3.5
- 6 Understand resolution as it applies to the Box Model. 2.3.6
- 7 Create boxes for layout. 2.3.7

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#### **4 Demonstrate the Ability to Effectively Design and Layout Out Web Pages Using CSS** 2.4

- 1 Designing for multiple screen resolutions. 2.4.1
- 2 Crafting the look and feel of a site. 2.4.2
- 3 Creating a unified site design. 2.4.3
- 4 Designing for the user. 2.4.4
- 5 Designing for accessibility. 2.4.5
6. Use the tag to create formatting sections of a document. 2.4.6
- 7 Use tag to format elements in a document. 2.4.7
- 8 Understand the positioning properties. 2.4.8
- 9 Create a print style sheet. 2.4.9
- 10 Use multiple style sheets. 2.4.10

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#### **UNDERSTAND INTEGRATION OF WEB PAGE CONTROLS** 3

##### **1 Appropriately Use Tables to Enhance their Web Pages** 3.1

- 1 Discern the difference between data tables and layout tables. 3.1.1
- 2 Understand the importance of using CSS for layout versus tables for layouts. 3.1.2
- 3 Learn how to nest a data table within a CSS layout. 3.1.3
- 4 Create styles to change the appearance of a table. 3.1.4
- 5 Understand how to position cell contents. 3.1.5
- 6 Understand how to position a table. 3.1.6
- 7 Understand how to manipulate table cells. 3.1.7

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##### **2 Demonstrate the Ability to Use Design and Layout Web Forms** 3.2

- 1 Create an HTML form. 3.2.1
  - 2 Create fields for text. 3.2.2
  - 3 Create text boxes. 3.2.3
  - 4 Understand how to choose appropriate form controls. 3.2.4
  - 5 Create radio buttons, check boxes, and list boxes. 3.2.5
  - 6 Create selection lists. 3.2.6
  - 7 Talk about HTML Form validation (but don't use). 3.2.7
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## **UNDERSTAND WEB RELATED PLANNING AND ORGANIZATIONAL STANDARDS 4**

### **1 Demonstrate Understanding of Website Architecture and Planning 4.1**

- 1 The beginning stages of Web site development. 4.1.1
  - 2 The importance of understanding a site's target audience and how that understanding can affect site development. 4.1.2
  - 3 Methods for getting a site developed. 4.1.3
  - 4 Baseline considerations for every site, including navigation, organization, graphic design, and content development. 4.1.4
  - 5 Understand the Web site development process. 4.1.5
  - 6 Create a site specification. 4.1.6
  - 7 Identify the content goal. 4.1.7
  - 8 Analyze their audience. 4.1.8
  - 9 Build a Web site development team. 4.1.9
  - 10 Create a site storyboard. 4.1.10
  - 11 Publish their Web site. 4.1.11
  - 12 Test their Web site. 4.1.12
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### **2 Demonstrate Understanding of Site Organization and Navigation Principles 4.2**

- 1 Create usable navigation. 4.2.1
  - 2 Build text-based navigation. 4.2.2
  - 3 Use graphics for navigation and linking. 4.2.3
  - 4 Use lists for navigation. 4.2.4
  - 5 Build horizontal navigation bars. 4.2.5
  - 6 Build vertical navigation bars. 4.2.6
  - 7 Use background color and graphics to enhance navigation. 4.2.7
  - 8 Create hover rollovers. 4.2.8
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### **3 Demonstrate understanding of Web site Accessibility Standards 4.3**

- 1 Investigate Accessibility Standards. 4.3.1
  - 2 Explore and implement Web Content Accessibility Guidelines (WCAG). 4.3.2
  - 3 Explore and understand Section 508 Standards. 4.3.3
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## **UNDERSTAND THE RELATIONSHIP OF WEB MARKETING 5**

### **1 Use Multimedia on the Web 5.1**

- 1 Learn the basics of multimedia and executable content. 5.1.1
  - 2 Embed Social Media Widgets on a Web page. 5.1.2
  - 3 Explore the various formats available for Web-based video, the factors that determine which one to use. 5.1.3
  - 4 Determine the demographics of the viewing audience, what they're watching, and why. 5.1.4
  - 5 Investigate how and why companies are using Web-based video, and how audiences are responding to these efforts. 5.1.5
  - 6 Explore what goes into producing professional videos. 5.1.6
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### **2 Demonstrate Brand and Marketing and Traffic Analysis 5.2**

- 1 Identify the different types of sites that make up the Web, how each differs from the other, and how marketers can take advantage of each type of site 5.2.1
- 2 Understand the importance of keeping visitors coming back to a site 5.2.2
- 3 Learn the methods that sites utilize to increase customer retention 5.2.3
- 4 Explain the issues involved in copyrighting, trademarking, and licensing 5.2.4
- 5 Identify the issues related to working in a global environment 5.2.5
- 6 Define web-related mechanisms for audience development (attracting and retaining an audience) 5.2.6
- 7 Identify how the Web is different from other marketing tools and the added value it can provide to marketers in developing brands 5.2.7
- 8 Discover how to promote and market your Web site to help drive new and returning traffic 5.2.8
- 9 Learn how marketers can track Web sites and what information relating to a Web site they can analyze 5.2.9

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### **3 Understand the Relationship Between the Web and Social Media** 5.3

- 1 Define social media. 5.3.1
- 2 Understand how and why social media grew to play such an important role in the Web. 5.3.2
- 3 Explore the demographic breakdown of social media users and how their use of various applications differs. 5.3.3
- 4 Investigate the various types of social networks, how social networking sites function, and how marketers use these sites to build an audience. 5.3.4
- 5 Differentiate between Blogging and Content Management Systems. 5.3.5
- 6 Examine benefits and potential pitfalls of using Blogging and Social Media. 5.3.6
- 7 Explore Wikis and how they harness the collaborative nature of a user community. 5.3.7
- 8 Add Fresh Content with RSS/XML feeds. 5.3.8
- 9 Define “Mashups” and how they give marketers a unique opportunity to present features and information pulled together from other social media tools. 5.3.9
- 10 Explore the creation of Virtual worlds, how people communicate using avatars. 5.3.10