

ICT Web Design Essentials Learning Objectives

ICT Domain 3: Web Design Essentials

Learning Objectives

Subdomain 3.1

Demonstrate an understanding of webpage design principles.

3.1.1

Identify website domains, and relate a site's domain to its purpose.

3.1.2

Relate basic components of a webpage (e.g., color, space, written content, typography, images, links, multimedia) to aesthetic, functional and/or usable design principles.

3.1.3

Define aesthetic design, and explain how aesthetics can affect a visitor's perception of a website's information.

3.1.4

Demonstrate knowledge of color wheel concepts and effective use of color on a website.

3.1.5

Compare functional and usable design principles, and explain how usability can affect a website's success.

3.1.6

Critique the aesthetic design, usability and accessibility of sample websites.

3.1.7

Define multimedia, and identify its role in webpage interactivity.

Subdomain 3.2

Plan the design and development of an effective website.

3.2.1

Explain the primary steps of the website planning process.

3.2.2

Apply the website planning process to plan the design for a basic website.

3.2.3

Build the site navigation scheme for a website.

3.2.4

Compare webpage creation using an HTML text editor to using a graphical user interface (GUI) editor.

3.2.5

Compare website creation using an online site builder, an offline site builder and a content management system (CMS).

3.2.6

Modify an existing webpage template to create an effective look and feel for a website.

3.2.7

Create a website using a template.

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Subdomain 3.3

Create webpages using basic HTML code and authoring tools.

3.3.1

Define "HTML (Hypertext Markup Language)" and related terms, including tag vs. element, container vs. empty tag, block-level vs. inline element, attribute, value, semantic tag.

3.3.2

Identify HTML elements required to create webpage structure.

3.3.3

Create webpages using basic HTML tags (e.g., headings, lists, character styles, text alignment, tables, comments).

3.3.4

Use HTML to create hyperlinks to external sites.

3.3.5

Use HTML to insert common image file formats into webpages, and use an image as a hyperlink.

3.3.6

Explain Cascading Style Sheet (CSS) technology.

3.3.7

Apply CSS styles to an HTML page.

3.3.8

Create and/or edit animation files, and integrate them into a webpage.

3.3.9

Create and/or edit video files, and integrate them into a webpage.

3.3.10

Use Dynamic HTML (DHTML) to enhance webpage interactivity.

Subdomain 3.4

Use collaborative web technologies in a web development or research project.

3.4.1

Create and use a wiki or similar tool for collaborating among project team members.

3.4.2

Create and use a social media page (e.g., Facebook, Wimba) and/or a blog to share content and collaborate on projects.

Subdomain 3.5

Prepare webpages for publication, and publish a website to the Internet using appropriate tools.

3.5.1

Review webpage content, verify copyright restrictions, and create meta-data before publishing a site to the Internet.

3.5.2

Test webpages for display, functionality, and accessibility before publishing a site to the Internet.

3.5.3

Validate webpage code using W3C validation tools before publishing a site to the Internet.

3.5.4

Describe network issues relating to websites, including bandwidth, compression, streaming, web hosting.

3.5.5

Explain the purpose of File Transfer Protocol (FTP) in accessing information on the Internet.

3.5.6

Publish a website using FTP.

3.5.7

Describe website security methods, including secure server vs. unsecured server, SSL, SSH, encryption.