ICT Web Design Essentials Objectives Matrix

The *ICT Web Design Essentials* course focuses on fundamentals of designing Web sites. Students will learn to identify elements of a Web page, and will evaluate the aesthetics and functionality of Web sites. They will learn the steps in the Web design process, such as determining Web site purpose, goals and target audience, and planning the site content, structure and navigation. They will also explore Web authoring tools. They will be introduced to the technical aspects of the Internet and the World Wide Web. Students will build a Web site using a GUI Web editor, and they will create Web pages that include audio, video and animation. Finally, students will prepare their Web sites for publishing. They will learn about Web hosting services, domain names, uploading files, implementation issues (bandwidth, compression, streaming) and collaboration tools (wikis, blogs).

ICT Web Design Essentials Objective	*ICT Web Design Essentials* Courseware Lesson(s) and Section(s)
Domain 3.1: Demonstrate understanding of Web page design principles, including domains, Web page components, aesthetic design, color use, functional design, usability and accessibility, and multimedia and interactivity.	
3.1.1: Identify Web site domains, and relate a site's domain to its purpose.	**Lesson 1: Principles of Web Design** - Web Site Categories and Domains
3.1.2: Relate basic components of a Web page (e.g., color, space, written content, typography, images, links, multimedia) to aesthetic, functional and/or usable design principles.	**Lesson 1: Principles of Web Design** - Aesthetic Web Design - Functional and Usable Design
3.1.3: Define aesthetic design, and explain how aesthetics can affect a visitor's perception of a Web site's information.	**Lesson 1: Principles of Web Design** - Aesthetic Web Design
3.1.4: Demonstrate knowledge of color wheel concepts and effective use of color on a Web site.	**Lesson 1: Principles of Web Design** - Aesthetic Web Design
3.1.5: Compare functional and usable design principles, and explain how usability can affect a Web site's success.	**Lesson 1: Principles of Web Design** - Functional and Usable Design
3.1.6: Critique the aesthetic design, usability and accessibility of sample Web sites.	**Lesson 1: Principles of Web Design** - Aesthetic Web Design - Functional and Usable Design
3.1.7: Define multimedia, and identify its role in Web page interactivity.	**Lesson 1: Principles of Web Design** - Multimedia and Interactivity

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Domain 3.2: Plan the design and development of an effective Web site, including Web site planning process, site navigation, HTML text and graphical editors, online and offline site builders, content management systems, and Web page templates.	
3.2.1: Explain the primary steps of the Web site planning process.	**Lesson 2: Planning a Web Site** - Web Site Planning Steps
3.2.2: Apply the Web site planning process to plan the design for a basic Web site.	**Lesson 2: Planning a Web Site** - Web Site Planning Steps
3.2.3: Build the site navigation scheme for a Web site.	**Lesson 2: Planning a Web Site** - Web Site Planning Steps
3.2.4: Compare Web page creation using an HTML text editor to using a graphical user interface (GUI) editor.	**Lesson 2: Planning a Web Site** - Using an HTML Text Editor or GUI Web Editor
3.2.5: Compare Web site creation using an online site builder, an offline site builder and a content management system (CMS).	**Lesson 2: Planning a Web Site** - Using an HTML Text Editor or GUI Web Editor - Using an Online Site Builder - Using an Offline Site Builder - Using a Content Management System (CMS)
3.2.6: Modify an existing Web page template to create an effective look and feel for a Web site.	**Lesson 2: Planning a Web Site** - Using an HTML Text Editor or GUI Web Editor - Using an Online Site Builder - Using an Offline Site Builder - Using a Content Management System (CMS)
3.2.7: Create a Web site using a template.	**Lesson 2: Planning a Web Site** - Using an HTML Text Editor or GUI Web Editor - Using an Online Site Builder - Using an Offline Site Builder - Using a Content Management System (CMS)
Domain 3.3: Create Web pages using basic HTML code and authoring tools, including HTML tags and terminology, HTML page structure elements, hyperlinks and images, Cascading Style Sheets (CSS) technology, animation and video files, and Dynamic HTML (DHTML).	
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, and semantic tag.	**Lesson 3: Creating a Web Site** - Introduction to HTML - Elements of a Web Page
3.3.2: Identify HTML elements required to create Web page structure.	**Lesson 3: Creating a Web Site** - Introduction to HTML - Elements of a Web Page

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3.3.3: Create Web pages using basic HTML tags (e.g., headings, lists, character styles, text alignment, tables, comments).	**Lesson 3: Creating a Web Site** - Introduction to HTML - Elements of a Web Page
3.3.4: Use HTML to create hyperlinks to external sites.	**Lesson 3: Creating a Web Site** - Elements of a Web Page
3.3.5: Use HTML to insert common image file formats into Web pages, and use an image as a hyperlink.	**Lesson 3: Creating a Web Site** - Elements of a Web Page
3.3.6: Explain Cascading Style Sheet (CSS) technology.	**Lesson 3: Creating a Web Site** - Elements of a Web Page
3.3.7: Apply CSS styles to an HTML page.	**Lesson 3: Creating a Web Site** - Elements of a Web Page
3.3.8: Create and/or edit animation files, and integrate them into a Web page.	**Lesson 3: Creating a Web Site** - Multimedia and Interactivity
3.3.9: Create and/or edit video files, and integrate them into a Web page.	**Lesson 3: Creating a Web Site** - Multimedia and Interactivity
3.3.10: Use Dynamic HTML (DHTML) to enhance Web page interactivity.	**Lesson 3: Creating a Web Site** - Multimedia and Interactivity
Domain 3.4: Use collaborative Web technologies in a Web development or research project, including wikis, blogs, social media sites and collaboration techniques.	
3.4.1: Create and use a Wiki or similar tool for collaborating among project team members.	**Lesson 4: Publishing a Web Site** - Collaboration - Wikis
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.	**Lesson 4: Publishing a Web Site** - Collaboration - Blogs
Domain 3.5: Prepare Web pages for publication (including Web page content review, copyright restrictions, metadata, Web page testing, HTML code validation), and publish a Web site to the Internet using appropriate tools (including network issues, site publishing with File Transfer Protocol [FTP], Web site security methods).	
3.5.1: Review Web page content, verify copyright restrictions and create meta-data before publishing a site to the Internet.	**Lesson 4: Publishing a Web Site** - Preparing to Publish
3.5.2: Test Web pages for display, functionality and accessibility before publishing a site to the Internet.	**Lesson 4: Publishing a Web Site** - Preparing to Publish
3.5.3: Validate Web page code using W3C validation tools before publishing a site to the Internet.	**Lesson 4: Publishing a Web Site** - Preparing to Publish

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3.5.4: Describe network issues relating to Web sites, including bandwidth, compression, streaming, Web hosting.	**Lesson 4: Publishing a Web Site** - Preparing to Publish - Uploading Your Web Site
3.5.5: Explain the purpose of File Transfer Protocol (FTP) in accessing information on the Internet.	**Lesson 4: Publishing a Web Site** - Uploading Your Web Site
3.5.6: Publish a Web site using FTP.	**Lesson 4: Publishing a Web Site** - Uploading Your Web Site
3.5.7: Describe Web site security methods, including secure server vs. unsecured server, SSL, SSH, encryption.	**Lesson 4: Publishing a Web Site** - Uploading Your Web Site