

COUNCIL OF COMMUNITY COLLEGES OF JAMAICA

COURSE NAME: Web Page Application – Java Script, HTML
COURSE CODE: CWEB2301
CREDITS: 3
DURATION: 45 Hours
PRE-REQUISITE:

CO-REQUISITE:

COURSE DESCRIPTION:

This course is designed to provide the necessary skills and training to give the student a basic foundation in the area of Web Design. The class will focus on web page planning, basic design, layout and construction (effective and ineffective), setup and maintenance of a web site, HTML, JavaScript, and various web page and image creation tools.

Student Objectives:

Upon completion of this course students will be able to:

- Define terms associated with the World Wide Web and the hypertext markup language.
- Demonstrate an advanced knowledge of the Internet and the various tools utilized including: Browsers, e-mail clients, FTP clients, compression utilities, newsreaders and search utilities.
- Demonstrate an understanding of basic web page design principles.
- Demonstrate awareness of design considerations that affect web page construction including audience, browser version and cross platform issues.
- Demonstrate knowledge of how to design and create effective and structured web pages using HTML and DHTML.
- Demonstrate knowledge of appropriate use of colour and typography on the web.
- Demonstrate knowledge of the various tools used to create HTML documents including: TextPad, FrontPage 2000, Dreamweaver, and HomeSite.
- Demonstrate knowledge of how to create raster and vector images (including animation) for the web utilizing Paint Shop Pro, Fireworks, and Flash.
- Demonstrate an understanding of the importance of image compression; utilize various tools and techniques.
- Demonstrate a basic knowledge of advanced HTML scripting including: JavaScript and CSS.
- Demonstrate knowledge of effective web site promotion.

CONTENT

1. Introduction

- a) Explanation of the Internet, websites and HTML
- b) Web Design Issues
- c) HTML tags
- d) Basic HTML tags
- e) Text Formatting (Formatting text within a page)
- f) Paragraphs
- g) Marquee tag and Headers tags

2. More with Text Formatting with HTML

- a) Character styles
 - a. Logical Styles
 - b. Physical Styles
- b) Preformatted Text
- c) Horizontal rules
- d) Attributes of the <hr> tag
- e) Line Break
- f) Addresses
- g) Quotations
- h) Special Characters
 - a. Character Entities for special Characters
 - b. Character Entities for Reserved Characters
- i) Text Alignment
 - a. Aligning Individual Elements
 - b. Aligning Blocks of Elements
- j) Fonts and Font sizes
 - a. Changing the Font Size
 - b. Changing the Font Face
- k) The Dreaded <blink>

3. Lists

- a) List tags
- b) Numbered Lists
- c) Customizing Ordered Lists
- d) Unordered Lists
- e) Customizing unordered Lists
- f) Glossary Lists
- g) Nesting Lists

4. Links

- a) Creating Links
 - i. The Link tag - <a>
- b) Linking local pages using Relative and Absolute Pathnames
 - i. Absolute Pathnames

- ii. Should you use Relative or Absolute Pathnames?
- c) Links to other documents on the web
- d) Linking to specific places within the documents
 - i. Creating Links and Anchor
 - ii. Linking to anchors in the Same Document
- e) Mailto

5. Using Images, Colour, Backgrounds

- a) Images on the web
- b) Inline Images in HTML : The tag
 - i. Adding an image alternate
- c) Images and Text
 - i. Text and Image Alignment
 - ii. Wrapping Text Next to Images
- d) Images and Links
- e) Using External Images
- f) Other neat tricks with images
 - i. Image Dimensions and scaling
 - ii. More About Image Borders
 - iii. Image Previews
- g) Using colours
- h) Naming colours
- i) Changing the Background Colour
- j) Changing Text Colours
- k) Image backgrounds

6. Tables & advanced Tables

- a) A note about the Table Definition
- b) Creating tables
- c) Table Parts
 - i. The <table> element
 - ii. Rows and Cells
 - iii. Empty Cells
 - iv. Captions
- d) Sizing Tables, Borders and cells
 - i. Setting widths
 - ii. Changing Table Borders
 - iii. Cell Padding
 - iv. Column widths
 - v. Setting Breaks in text
- e) Table and cell colour and Alignment

Changing table and cell background

- i. Changing border colours
- f) Aligning your table content
 - i. Table Alignment

- ii. Cell Alignment
- iii. Caption Alignment
- g) Spanning multiple table enhancements
- h) Other table elements and attributes

7. Frames and Linked Windows

- a) What are frames and who supports them
- b) Working with Linked windows
 - i. The <base> Tag
- c) Working with Frames
 - i. The <frameset> Tag
 - ii. The <frame> Tag
 - iii. The <noframes> Tag
- d) Changing Frame Borders
 - i. Creating Complex Framesets
- e) Magic target Names
- f) Floating frames

8. Image Maps

- a) What is an Image Map?
 - i. Server-side Image maps
 - ii. Client-side Image maps
 - iii. Image maps and Text-only Browsers
- b) Creating Server-side Image maps
 - i. Getting an image
 - ii. Determining Your Coordinates
 - iii. Creating and saving Your Map File
- c) Creating Client-side Image maps
 - i. The <map> and <area> Tags
 - ii. The use map Attribute
- d) Building Web pages that support Both Types of Image maps

9. Forms

- e) Understanding Form and Function
- f) Essential Elements of a Form
 - i. Using the form element to create Forms
 - ii. Creating Form Controls with the input Element
 - iii. Using other Control Elements
 - iv. Creating Menus with select and option
- g) Adding Extras
 - i. Displaying Control Labels
 - ii. Creating disables and read only controls
- h) Planning your Forms

10. Document Templates

- a. Creating and using standard template files for web pages

11. XHTML and Cascading Style Sheets

- i) What is XHTML and why Use it?
- j) The <DOCTYPE> Identifier
- k) XHTML Syntax
- l) The concept of style sheets
- m) Some background on style sheets
- n) Approaches to style sheets
 - i. External Style Sheet
 - ii. Embedded Style Sheets
- o) About cascading
- p) Commonly Used Style Sheet Properties and values
 - i. Controlling Page Layout CSS Properties
 - ii. Backgrounds, colour, and Images
 - iii. Setting Border appearance
 - iv. Font Appearance and style
 - v. Text Alignment Properties in CSS
 - vi. Inline Styles
 - vii. Sources of Information About Cascading Style Sheets

12. Intro to JavaScript

- b. Introducing JavaScript
- c. Why would you want to use JavaScript?
- d. The <script> tag
- e. The structure of a JavaScript Script
- f. The SRC attribute
- g. Basic Commands and Language Structure
- h. Properties and Methods
- i. Events and JavaScript
- j. Variables
- k. Operators and Expressions
- l. Basic JavaScript Programming
- m. What is a Program?
- n. Learn More Programming in JavaScript

13. Forms & JavaScripts

- q) Introduction to Object Oriented Programming
- r) Objects, Data Members, Methods
- s) Events and Event Handlers
- t) Validating Form Elements using JavaScript

14. Mouse over and Rollover

- a. Creating images and Mouse over and rollover

15. Frames and JavaScript

b) Validating the frames using JavaScript

16. Students are required to develop a web-based project using the concepts learnt in HTML and JavaScript.

Mode of Evaluation:

40 % Course Work (Project / Assignment)

60 % Final Examination

Textbooks

PRESCRIBED:

Anderson-Freed, S. [2002]. Weaving a Website: Programming in HTML, Java Script, Perl and Java. Prentice Hall Pub. USA

RECOMMENDED

Negrino, T. & Smith, D. [2003]. JavaScript for the World Wide Web: Visual Quick Guide Start. 5th Ed. Prentice Hall Pub. USA