Course: **Creating & Developing Websites – An Introduction to CSS, HTML and JavaScript**

Contact Hours: **30**

Pre-requisite: **Must be computer literate**

Abstract

Today's digital marketplace enables companies to use a variety of methods to better connect with their customers, most notably through the use of websites. A well-designed website provides customers with easily accessible information about the company, details on how to find or contact them, and the ability to make purchases and place orders. This course is intended as an introduction to HTML, CSS and JavaScript and explores various ways to use these languages to create an effective and well-designed webpage.

Learning outcomes

On completion of this course, learners will be able to do the following.

1. Set up a development environment
2. Inspect a web page with dev tools
3. Create a complete web page with HTML
4. Create a semantic web page
5. Style a web page with CSS
6. Add multimedia elements to a web page
7. Link multiple web pages
8. Layout a web page with CSS
9. Write simple JavaScript functions
10. Write simple event handlers
11. Make a website available on the internet
12. Add simple scripts to a web page

Course Content

1. **Set up a Development Environment**
   - *Getting Set up*: Installing VSCode; Running a local web server; Online resources - repl.it; Basic file editing

2. **Inspect a web page with dev tools**
   - *Anatomy of HTML*: Elements and Tags; Structure of an HTML document; Using Chrome Dev Tools to examine a document

3. **Create a complete web page with HTML**
   - *Basic Formatting*: Headings; Lists; Paragraphs; **Div**

4. **Create a semantic web page**
   - Semantic HTML (LO 4): Header; Main; Section; Article; Footer

5. **Style a web page with CSS**
   - *Anatomy of CSS*: Rules; Selectors; Basic Styles; Linking to stylesheets
   - *Selectors*: Class selectors; Id selectors; Name selectors; Nested selectors
   - *Units of Measure*: pixels; points; **em**; **rem**
   - *Fonts*: font-family; font-size; font-weight; color; Web fonts

6. **Add multimedia elements to a web page**
   - *Images*: The img tag; Image file types; The Alt attribute

7. **Link multiple web pages**
   - *Links*: Absolute vs Relative URLs; Structure of a URL; Linking to external content

8. **Layout a web page with CSS**
   - Box Model (LO 8): Width; Height; Margin; Border; Padding; Basic Layout

9. **Write simple JavaScript functions**
   - *JavaScript Functions*: Function basics: Working with Strings: Working with Numbers

10. **Write simple event handlers**
    - *Events*: Click events; Mouse events

11. **Make a website available on the internet**
    - *Deployment*: Web servers; Hosting; Some free examples, using Zeit

12. **Add simple scripts to a web page**
    - *Introduction to JavaScript*: Linking to a script file; Interacting with the DOM; Variables; DataTypes

Learning Resources

HTML
- Official documentation, tutorials and guides: https://developer.mozilla.org/en-US/docs/Web/HTML
- An Interactive tutorial: https://scrimba.com/g/ghtml
- Online book (for CSS too): http://howtocodeinhtml.com/

CSS
- Official documentation, tutorials and guides: https://developer.mozilla.org/en-US/docs/Web/CSS
- An Interactive tutorial: https://scrimba.com/g/gintrotocss
- Interactive Flex box tutorial: https://flexboxfroggy.com/
- Interactive Grid tutorial: https://cssgridgarden.com/

JavaScript
- Official documentation, tutorials and guides: https://developer.mozilla.org/en-US/docs/Web/JavaScript
- An interactive tutorial: https://scrimba.com/g/gintrotojavascript
- Online book: https://eloquentjavascript.net/