## Hands-On

# Web Site Development with HTML/JavaScrip



## **Course Description**

This Hands-On Web programming course provides a thorough introduction to implementing a full-featured Web site on the Internet or corporate Intranet, including implementation of dynamic content using JavaScript and related tools.

Starting with thorough coverage of XHTML and Cascading Style Sheets (CSS), the course progresses to the implementation of dynamic client-side content using JavaScript. Hands-on exercises are performed throughout each day to demonstrate key concepts and much more.

## **Students Will Learn**

- XHTML Fundamentals
- Developing and Using Cascading Style Sheets (CSS)
- Building Forms and Tables
- DOM (Document Object Model)
- JavaScript Language and Syntax
- JavaScript Directives
- Form Validation
- Scripting CSS
- Creating and Using Functions
- JavaScript Objects
- Arrays
- Cookies
- Event Handling
- And More...

## **Target Audience**

Anyone interested in HTML and JavaScript programming.

## **Prerequisites**

Basic personal computer skills and basic Internet knowledge.

#### **Course Outline**

### XHTML Fundamentals

Understanding < DOCTYPE> Creating Valid XHTML Documents Using Block and Text-Level Tags XHTML Tag Attributes ? class, id, style

Creating Effective <title> tags

## Creating and Managing Styles

Overview of Cascading Style Sheets (CSS) Creating CSS Rules **Defining Type Selectors** Defining Class and ID Selectors Pseudo-Classes and Elements Linking to External Style Sheets Embedded Style Sheets

## Constructing Forms

<form> Tags and Attributes Single-line and Multi-line Text Fields Radio Buttons and Checkboxes Dropdown and Selection Lists Submit and Reset Buttons Using CSS to Style a Form

#### **Tables**

Adding Tables to a Page Working with , , , and <caption> Elements Table Attributes Creating Nested Tables Using CSS to Style a Table

#### Lists

Types of Lists

- ? Ordered Lists
- ? Unordered Lists
- ? Definition Lists

Creating List Items Using the Tag Creating Nested Lists Using CSS to Style a List

## Using Graphics and Links

Displaying Images on a Web Page Adding hyperlinks to a Page Creating Email Links

Creating Anchors on a Page Working with Client-Side Image Maps

## Introduction to Client-Side JavaScript

Embedding JavaScript in an XHTML Document Evolution of the JavaScript Language

JavaScript Versions and Browser Support

## Statements and Operators

Variable Declarations

Assignment Operators and Statements

Arithmetic Operators

**Logical Operators** 

**Comparison Operators** 

**String Operators** 

**Conditional Operators** 

Operator Precedence

## DOM/CSS Scripting

Introduction to the Document Object Model (DOM)

Using the getElementById method

Modifying Page Content with the DOM

Manipulating CSS using JavaScript

Programmatic Access to CSS

#### Implementing Functions

**Defining Functions** 

**Invoking Functions** 

Named and Anonymous Functions

Passing Arguments

Local vs. Global Variables

Using the return Statement

## Implementing Control Constructs

Introduction to Conditional and Looping Constructs

The if else Statements

The do while Statements

The for in Statements

The switch Statement

## JavaScript Objects

The JavaScript Browser Object Model

JavaScript Object Properties

Object Methods

The new Keyword

The this Keyword

Creating New Object Instances Using Constructor Functions

String, Date and Array Objects

#### Fundamental JavaScript Directives

Inline JavaScript

Linking Web Pages to External JavaScript Files

JavaScript Using <script> Tags and Attributes

Deferred scripts

<noscript> Tags

#### Implementing Arrays

Using Arrays in JavaScript
Predefined JavaScript Object Arrays
Creating Arrays
Reading and Writing to an Array
Common Array Properties and Methods

#### Cookies

Overview of JavaScript Cookies Session and Persistent Cookies Using Cookies on a Web Page Common Uses of JavaScript Cookies

### Common Applications

Form Validation and Testing
Working with Regular Expressions
User Interaction
Local Form Processing
Object Detection
Creating New Windows
Adding Content to a Window
Browser Awareness Using the navigator Object
Interactive Graphics

## **Event Handling**

The W3C and Internet Explorer Event Models The Event Object Registering JavaScript Events Inline Event Handlers Processing Keyboard and Mouse Events

## **Delivery Method**

Instructor-Led with numerous Hands-On labs and exercises.

## **Equipment Requirements**

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

## **Course Length**

5 Days