

Hands-On

Web Site Development with HTML/JavaScript



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 <table>, <tr>, <td>, <th> 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