# HTML5 Programming

**Duration: 3 Days      Course Code: M10953**

## Overview:

This three-day instructor-led course provides participants with the knowledge and skills to develop HTML5 web applications using Microsoft Visual Studio 2010.

## Target Audience:

This course is intended for entry-level developers for HTML who have a basic but limited understanding of HTML and who are interested in learning core HTML5, CSS, and JavaScript programming skills that are required to successfully create applications for the upcoming Internet Explorer 10 browser and the next version of the Windows operating system.

## Objectives:

- After completing this course, students will be able to:

- Create and view a simple Web application using HTML within the Microsoft Visual Studio 2010 SP1 IDE.

- Explain the new semantic and structural elements that can be used to create HTML5 Webpages.

- Create Web forms that make use of validation capabilities using the new input types and attributes included in the HTML5 specifications.

- Create layouts and styles using advanced CSS and CSS3.

- Integrate graphics and multimedia into webpages using the Canvas, SVG, Video and Audio elements.

- Implement offline data scenarios using the new HTML5 Web Storage API.

- Use advanced HTML5 JavaScript APIs such as drag-and-drop, File API and Geolocation API.

- Create simple web applications using WebMatrix or ASP.NET MVC.

## Prerequisites:

- Have three to six months of development experience in a professional environment.
- Be familiar with the HTML document structure and associated terminology, but are not expected to be expert and do not need to have experience with HTML5.
- Have one to three months experience with HTML and XML.
- Havea general familiarity with the Microsoft Visual Studio IDE.

## Content:

Module 1: Introduction to HTML5 Development

This module introduces HTML development, presenting all the basics needed to build a web site or application. It also introduces CSS and JavaScript, which with HTML are the basis for web development. It also introduces the jQuery JavaScript library, the most popular JavaScript library at the time of writing.

Lessons

- Overview of HTML
- HTML5 Structural Elements
- Working with Input Types
- Creating Layouts
- Canvas Basics
- Drawing with SVG
- Web Storage vs. Cookies
- Using the Drag-and-Drop API
- WebMatrix

- What's New in HTML5?
- Introduction to CSS
- Introduction to JavaScript
- Introduction to jQuery
- Navigation and Menus
- Using Form Attributes
- Validation
- Using Browser Detection, Feature Detection, and Modernizr
- Advanced CSS by Using CSS3
- Video/Audio Formats and Codecs
- Controlling Multimedia with JavaScript
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- File API
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Module 4: Laying Out and Styling Webpages

This module explains important concepts about the layout and styling of webpages and applications. It also describes how to use the new features of Cascading Style Sheets 3 (CSS3), such as new selectors, text effects, and multi-column layouts, to improve the look and feel of your webpages.

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Module 7: Using Client-Side Storage

This module explains web storage and how to use its API to have a persistence mechanism on the client-side. It also introduces IndexedDB at a very high level because this specification is currently in development and might change in the future.

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## Module 2: Creating Page Structure and Navigation

This module explains the new HTML5 elements and their meaning, and how and when to use them. The module also discusses navigation and menus, which are the backbone of creating a website or application.

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## Module 5: Getting Started with Graphics and Multimedia Elements

This module explains the canvas element, which displays graphics, and the audio and video elements, which are used to play multimedia. These elements represent HTML5's solution to add-on availability and cross-browser compatibility for multimedia and graphics.

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## Module 8: Using Advanced HTML5 JavaScript APIs

This module explains how to use other HTML5 JavaScript APIs, such as the drag-and-drop API, the file API to work with files, and the geolocation API to find the user location.

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## Module 3: Creating Form Input and Validation

This module introduces the new input types and attributes that were added in HTML5. It also discusses the Modernizr JavaScript library, which detects HTML5 features and supplies polyfills for the new HTML5 elements.

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## Module 6: Creating Advanced Graphics

This module discusses some of the differences between SVG and Canvas. It also describes how to choose one over the other.

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## Module 9: Using WebMatrix and Other Developer Tools

This module explains other developer tools that you can use with HTML5. These tools include Microsoft WebMatrix, ASP.NET MVC3, and the Razor view engine. It also explains how to use these tools to create websites and applications.

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## Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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