

20480BC

Programming in HTML5 with
JavaScript and CSS3

5 DAYS

This course provides an introduction to HTML5, CSS3, and JavaScript. This course helps students gain basic HTML5/CSS3/JavaScript programming skills. This course is an entry point into both the Web application and Windows Store apps training paths. The course focuses on using HTML5/CSS3/JavaScript to implement programming logic, define and use variables, perform looping and branching, develop user interfaces, capture and validate user input, store data, and create well-structured application.

Module 1: Overview of HTML and CSS

- Overview of HTML
- Overview of CSS
- Creating a Web Application by Using Visual Studio 2012

Module 2: Creating and Styling HTML5 Pages

- Creating an HTML5 Page
- Styling an HTML5 Page

Module 3: Introduction to JavaScript

- Overview of JavaScript Syntax
- Programming the HTML DOM with JavaScript
- Introduction to jQuery

Module 4: Creating Forms to Collect Data and Validate User Input

- Overview of Forms and Input Types
- Validating User Input by Using HTML5 Attributes
- Validating User Input by Using JavaScript

Module 5: Communicating with a Remote Data Source

- Sending and Receiving Data by Using XMLHttpRequest
- Sending and Receiving Data by Using jQuery AJAX operations

Module 6: Styling HTML5 by Using CSS3

- Styling Text
- Styling Block Elements
- CSS3 Selectors
- Enhancing Graphical Effects by Using CSS3

Module 7: Creating Objects and Methods by Using JavaScript

- Writing Well-Structured JavaScript
- Creating Custom Objects
- Extending Objects

Module 8: Creating Interactive Pages using HTML5 APIs

Interacting with Files
Incorporating Multimedia
Reacting to Browser Location and Context
Debugging and Profiling a Web Application

Module 9: Adding Offline Support to Web Applications

Reading and Writing Data Locally
Adding Offline Support by Using the Application Cache

Module 10: Implementing an Adaptive User Interface

Supporting Multiple Form Factors
Creating an Adaptive User Interface

Module 11: Creating Advanced Graphics

Creating Interactive Graphics by Using Scalable Vector Graphics
Programmatically Drawing Graphics by Using a Canvas

Module 12: Animating the User Interface

Applying CSS Transitions
Transforming Elements
Applying CSS Key-frame Animations

Module 13: Implementing Real-Time Communications by Using Web Sockets

Introduction to Web Sockets
Sending and Receiving Data by Using Web Sockets

Module 14: Creating a Web Worker Process

Introduction to Web Workers
Performing Asynchronous Processing by Using a Web Worker