



Advanced Web Design Using HTML5, JavaScript & CSS3

Course Objective

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.

Prerequisite:

Knowledge in Dreamweaver.

In addition, if participants who attend this training have a combination of practical and conceptual knowledge related to HTML5 programming would be an added advantage.

Who Should Attend:

This course is intended for participants who are interested in developing applications using HTML5 with JavaScript and CSS3 (either Windows Store apps for Windows 8 or web applications).

Training Duration:

Full-Time : 5 Weekdays / 5 Sats
Time : 9.30am – 5.30pm

Course Fee:

Normal Course Fee : S\$1999
Regn Fee : S\$50
Exam Fee : S\$296 (Includes S\$50 exam proctor fee)

Certificate Of Attendance :

Certificate Of Attendance will be awarded to participants completing the course achieving minimum 75% attendance.

All fees subject to prevailing GST.
Exam fee subject to final confirmation from Pearson VUE at exam registration
This course prepares participants for Microsoft Exam : 70-480 (Programming in HTML5 with JavaScript and CSS3).

DETAILED COURSE OUTLINE

Module 1: Overview of HTML and CSS

This module provides an overview of HTML and CSS, and describes how to use Visual Studio 2012 to build a Web application.

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

Module 2: Creating and Styling HTML5 Pages

This module describes the new features of HTML5, and explains how to create and style HTML5 pages.

- Creating an HTML5 Page
- Styling an HTML5 Page

Module 3: Introduction to JavaScript

This module provides an introduction to the JavaScript language, and shows how to use JavaScript to add interactivity to HTML5 pages.

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

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

This module describes the new input types available with HTML5, and explains how to create forms to collect and validate user input by using the new HTML5 attributes and JavaScript code.

- 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

This module describes how to send and receive data to and from a remote data source by using an XMLHttpRequest object and by performing jQuery AJAX operations.

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

Module 6: Styling HTML5 by Using CSS3

This module describes how to style HTML5 pages and elements by using the new features available in CSS3.

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

Module 7: Creating Objects and Methods by Using JavaScript

This module explains how to write well-structured and easily-maintainable JavaScript code, and how to apply object-oriented principles to JavaScript code in a Web application.

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

Module 8: Creating Interactive Pages using HTML5 APIs

This module describes how to use some common HTML5 APIs to add interactive features to a Web application. This module also explains how to debug and profile a Web application.

- 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

This module describes how to add offline support to a Web application, to enable the application to continue functioning in a user's browser even if the browser is disconnected from the network.

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

Module 10: Implementing an Adaptive User Interface

This module describes how to create HTML5 pages that can dynamically detect and adapt to different devices and form factors.

- Supporting Multiple Form Factors
- Creating an Adaptive User Interface

Module 11: Creating Advanced Graphics

This module describes how to create advanced graphics for an HTML5 Web application by using a Canvas element, and by using Scalable Vector Graphics.

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

Module 12: Animating the User Interface

This module describes how to enhance the user experience in an HTML5 Web application by adding animations.

- Applying CSS Transitions
- Transforming Elements
- Applying CSS Key-frame Animations

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

This module explains how to use Web Sockets to transmit and receive data between an HTML5 Web application and a server.

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

Module 14: Creating a Web Worker Process

This module describes how to use Web Worker Processes to perform long-running operations asynchronously and improve the responsiveness of an HTML5 Web application.

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