

Web Development with HTML5 and CSS3

Course ISI-1372D 5 Days Instructor-led, Hands-on

Introduction

This five-day instructor-led course is geared for software developers who need to understand what the latest in web technologies, performance, optimization, user interface design patterns, and best practices. The course presents all of the HTML5 and CSS3 skills that you may need. You will also learn how to add JavaScript, jQuery and jQuery Mobile features to your web pages without knowing how to code JavaScript and jQuery. Learn Responsive Web Design and how to use Flexible Box and Grid Layout for page layout so that your websites look good and work right on any screen or devices.

HTML5 and CSS3 (the latest standards for HTML and cascading style sheets) are packed with coding options that make it easier than ever to create web pages with the features users want today, from an up-to-date look and feel...to immediate validation of user entries...to audio and video samplings. At the same time, there are still older browsers and millions of existing web sites that require you to integrate HTML5 and CSS3 features with the earlier standards.

This course is exactly the practical approach you need. It teaches you how to use HTML5 and CSS3 the way they were meant to work, with HTML5 to provide the page content and CSS3 to format the content and lay out the pages. But it also teaches you how to use the HTML5 and CSS3 features alongside the earlier standards (HTML 4 and CSS) to ensure that your pages will work for the widest possible audience.

The course shows you how to use Visual Studio Code (VS Code) as your text editor. That's the text editor that has become so popular for all types of program development, including web development with HTML, CSS, and JavaScript

At Course Completion

After completing this course, students will be able to:

- How to use HTML5 and CSS3 to build websites at a professional level
- How to use Responsive Web Design so your pages will look good and work right on any screen, from phone to tablet to desktop
- How to work with images, including thumbnails, rollovers, and image maps
- When and how to use tables
- How to work with forms and the HTML5 validation features
- How to add audio and video to your pages (HTML5 lets you use the players that are built into all modern browsers)

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- How to use embedded fonts so you can be sure all browsers that access your website will display your pages the way you designed them
- How to format your web pages for printing
- How to use the CSS3 features for transitions, transforms, animations, and filters
- How to add JavaScript and jQuery features to your web pages
- JavaScript and jQuery to enhance your web pages with features like image rollovers and image swaps
- jQuery UI and jQuery plugins to enhance your web pages with features like accordions, tabs, carousels, and slide shows
- jQuery Mobile to develop a separate website for mobile devices when it's impractical to add Responsive Web Design to an established site
- Today's best practices for designing a site
- Then you will learn how to test and deploy your website, but also how to get the site indexed on the major search engines and directories

Prerequisites

This course is for anyone who wants to develop web pages the modern, professional way using HTML5 and CSS3. That includes budding web designers and web designers who still use tables for page layout when they should be using CSS.

But it's also for web programmers, whether they're working in JavaScript or using a server-side language like PHP, ASP.NET, or Java servlets and JSPs. Web programmers are often surprised at the intricacies involved in writing good HTML and CSS, yet understanding that piece makes them more effective members of the development team

Course Materials

The student kit includes a workbook and other necessary materials for this class.

Course Outline

Module 1: Introduction to web development

If you're completely new to web development, you will learn how static and dynamic web pages work, and get a first view of how HTML and CSS are intended to work together in a modern web site

- How web applications work
- An introduction to HTML and CSS
- Tools for web development
- How to view deployed web pages
- Five critical web development issues

Module 2: How to code, test and validate a web page

- The HTML syntax
- The CSS syntax
- How to use Brackets to work with HTML and CSS files
- How to test, debug and validate HTML and CSS files

Module 3: How to use HTML to structure a web page

- How to code the head section
- How to present the contents of a web page
- Other elements for presenting text
- How to code links, lists and images
- A structured web page

Module 4: How to use CSS to format the elements of a web page

- An introduction to CSS
- How to specify measurements and colors
- How to work with text
- How to use other selectors to apply styles
- The HTML and CSS for a web page
- How to use Developer Tools and custom properties

Module 5: How to use the CSS box model for spacing, borders, and backgrounds

- An introduction to the box model
- How to size and space elements
- A web page that illustrates sizing and spacing
- How to set borders and backgrounds
- A web page that uses borders and backgrounds

Module 6: How to use CSS for page layout

- How to develop 2- and 3-column layouts
- A home page with a 2-column, fixed-width layout
- A speaker page with a 2-column, fixed-width layout
- How to create text columns
- How to create text columns
- How to position elements

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Module 7: How to work with links and lists

- How to code lists
- How to format lists
- How to code links
- How to create navigation menus

Module 8: How to use Responsive Web Design

- Introduction to responsive web design
- How to implement a fluid design
- A web page with fluid design
- How to use media queries
- A web page with Responsive Web Design
- The CSS when using mobile-first coding

Module 9: How to use Flexible Box Layout for page layout and Responsive Web Design

- Getting started with Flexible Box Layout
- How to set flexbox properties
- A responsive web page that uses flexbox

Module 10: How to use Grid Layout for page layout and RWD

- Getting started with Grid Layout
- How to define the grid areas for elements
- A responsive web page that uses grid layout
- Common page layouts that use grid

Module 11: How to work with images and icons

- Basic skills for working with images and icons
- Other skills for working with images
- How to provide images for varying viewport sizes
- How to get the images and icons that you need
- How to work with fonts

Module 12: How to work with tables

- Basic HTML skills for coding tables
- Basic CSS skills for formatting tables
- Other skills for working with tables

Module 13: How to work with forms

- How to use forms and controls
- Other skills for working with forms
- How to use the HTML5 features for data validation
- A web page with a form
- How to use other HTML controls

Module 14: How to add audio and video to your web site

- An introduction to media on the web
- A web page that with audio and video

Module 15: How to work with fonts and printing

- How to embed fonts in a web page
- The skills for formatting printed web pages
- A two-column web page with print formatting

Module 16: Users, usability, and web design

- Users and usability
- Design guidelines

Module 17: How to deploy a website

- How to transfer files to and from an Internet server
- How to start your own website
- Design guidelines

Module 18: How to use JavaScript to enhance your web pages

- Introduction to JavaScript
- The Email List application in JavaScript

Module 19: How JavaScript and jQuery are used to enhance web pages

- Introduction to JavaScript
- The Email List application in JavaScript
- Introduction to jQuery
- The Email List application in jQuery