

Technical Training Solutions



HTML5 & CSS3 BOOT CAMP (5 Day Course)

Technical
Course
Outline

Course Summary

HTML5 is the first revision to the HTML language since 1998 and it brings with it a wide range of new elements and APIs that allows HTML5 enabled clients to do more than ever before, without the use of plugins and, in some cases, replacing the need for JavaScript. CSS3 brings a wide range of long sought after selector and presentation capabilities into the mainstream. Together, HTML5 and CSS3 are changing the web from a desktop-centric monolith to an application that serves responsive content to an ever increasing array of devices running on a variety of platforms.

This course is meant to expose current web developers to the new semantic markup elements in HTML5 and explore how to leverage them with new elements of CSS3. Students will learn how to include native HTML5 audio and video in their web pages that removes the reliance on the use of ActiveX, Silverlight or Flash plug-ins. Creating dynamically generated images using the HTML5 canvas and its supporting API along with CSS3 transitions and animations are covered. Additionally, students will be exposed to other elements of the HTML5 “family” of technologies, such as Geolocation and client storage.

Intended Audience

This course is intended for web developers who already possess strong knowledge and experience with (X)HTML, CSS and JavaScript.

Prerequisites

To ensure an effective learning environment *for all attendees*, it is imperative that *each student* meet the minimum course prerequisites.

Successful completion of, or 90% proficiency with, the topics from the following courses (Please refer to each course outline to make sure you meet these requirements):

- “Advanced HTML, XHTML, & CSS”
- “Introduction to JavaScript”

Course Contents:

Introduction to HTML5

- What Exactly Is HTML5?
 - HTML5 Goals
 - What About All My (X)HTML 4.x Markup?
- HTML5 vs. The HTML5 “Family”
- Browser/Device Support for HTML5
 - Progressive Enhancement
 - Graceful Degradation
 - HTML5 Polyfills & Shims

Writing HTML5

- The **DOCTYPE** Declaration
- Optional Elements & Attributes
- Relaxed Syntax & Best Practices
- HTML5 Validation

New Semantic Markup

- The HTML5 Document Outline
- Structural Semantic Elements
 - **header**, **footer**, **hgroup**, **section**, **nav**, **article**, **aside**
- The **time** Element
- The **keygen** Element
- WAI-ARIA & HTML5 (Overview)
 - Landmark Roles
- Deprecated Elements

Forms

- The **form** Attribute
- The **placeholder** Attribute
- Form Field Types
- Forms and Validation
 - The **required** Attribute
 - The **number** input type
 - The **pattern** Attribute
 - The **range** and **date** input types
 - The **datalist** Element
 - The **autofocus** and **onforminput** Attributes

CSS3

- New Selectors
 - CSS3 Pseudo-Classes
 - Attribute Selectors
- Media Queries & Responsive Design
 - Viewport vs. Screen
- HTML5 & CSS3
- CSS3 & Typography
- CSS3 Transitions and Animations

Video and Audio

- Replacing Flash with HTML5
- New Elements for Video/Audio
 - Using the **audio** Element
 - The **video** Element
 - Specifying More Than One Audio or Video File
 - The poster Attribute
 - Other **audio** and **video** Attributes
- JavaScript and Media Elements
- Graceful Degradation

Geolocation

- Geolocation Concepts
- Geolocation API
 - Success Function
 - Error Function
 - Options
 - **watchPosition** API

Web Storage and Web SQL

- Data Storage Options
- Web SQL Databases
- Using a Web SQL Database
- Running Queries
- Reading Values

Canvas

- **canvas** vs. SVG
- Creating the Canvas
- Getting & Using the Context
- Using Color & Gradients
- Drawing Paths
- Transformers

Offline Access

- When Is An Offline Option Appropriate?
- Identifying Page Resources
- Creating the **.manifest** File

Testing HTML5 & CSS3 Designs

- HTML5 and CSS3 Feature Testing
 - **modernizr.js** and **yepnope.js**
- Viewport Testing
- A/B Testing
- Online Testing Resources
- Integrated Browser Development Tools