



# Web Design Specialist

## (Adobe CS5 Web Edition)

The *Web Design Specialist* course (formerly titled *Design Methodology and Technology*) teaches you how to design and publish Web sites. General topics include Web Site Development Essentials (such as the site development process, customer expectations, and ethical and legal issues in Web development), Web Design Elements (such as aesthetics, the site user's experience, navigation, usability and accessibility), Basic Web Technologies (such as basic Hypertext Markup Language [HTML], Extensible HTML [XHTML] and extended technologies, image files, GUI site development applications, site publishing and maintenance) and Advanced Web Technologies (such as multimedia and plug-in technologies, client-side and server-side technologies, and Web databases).

In this course, you will work with popular production tools such as Microsoft Expression Web, and Adobe Dreamweaver and Flash. You will study design and development technologies such as Cascading Style Sheets (CSS), Extensible Markup Language (XML), JavaScript, Java applets, Dynamic HTML, plug-ins, multimedia and databases. You will also explore the extensibility of design tools, incompatibility issues surrounding these tools, and the functionality of current Web browsers.

*Web Design Specialist* will also teach you to manage the Web site development process. You will learn about new technologies and traditional strategies involving the Web designer job role. Throughout this course, you will learn how Web sites are developed as managed projects, relate Web site development to business goals, and apply guidelines for user accessibility to Web site development. You will also consider site design from several perspectives. You will approach design from the Web user's perspective so that you can identify with user interests and needs. You will also assume the roles of Web designer and project manager, as you work through the Web site development process by evolving a Web presence site into a working prototype Web project. Hands-on labs include real-world scenarios based on a previously live version of the Habitat for Humanity International Web site. Note that students will build prototype pages using Habitat for Humanity content. This content is provided by Habitat for Humanity with permission to use it in labs teaching site development skills. The prototype pages that students build do not necessarily represent, duplicate or simulate the current live Habitat for Humanity Web site, which can be visited at [www.habitat.org](http://www.habitat.org).

## Topics

### Overview of Web Design

- Concepts
- Web Technology
- The Nature of the Web
- Web Design Concepts
- New Technologies
- Evaluating Your XHTML Skills

### Web Development Teams

- Web Teams and Tasks
- Web Project Management
- Web Project Collaboration
- Your Web Design Portfolio
- Your Web Design Business

### Web Project Management

- Fundamentals
- Web Project Management Phases
- Project Documentation and Communication

### Web Site Development Process

- Bottom-Up Approach to Web Development
- Understanding the Business Process
- Defining a Web Site Vision
- From Vision to Strategy
- Web Site Specifications

- The Metaphor
- Mystery Meat Navigation
- The Mindmapping Process
- Creating a Web Site Wireframe
- Creating a Web Page Wireframe

### Web Page Layout and Elements

- Web Users and Site Design
- Effective Web Page Layout
- Branding and the Web
- Color and Web Design
- Fonts and Web Design

### Web Site Usability and Accessibility

- Audience Usability and Accessibility
- Defining Usability
- Web Site Usability Testing
- Web Page Accessibility

### Browsers

- Browsers and Navigation
- Browsers and Design Considerations
- Browser Adoption
- Major, Minor and Alternative Browsers
- Creating Aliases with TinyURL
- Utilizing CAPTCHA

### Navigation Concepts

- Why Is Navigation Critical?
- Primary and Secondary Navigation
- Navigation Hierarchy
- Site Structure, URLs and File Names
- Familiar Navigation Conventions
- Guided Navigation
- Navigation Action Plan

### Web Graphics

- Web Site Images
- Digital Imaging Concepts
- Raster vs. Vector Graphics
- Graphics Applications
- Image File Formats
- Creating and Optimizing Images
- Essential Graphic Design Concepts

### Multimedia and the Web

- Multimedia and Web Sites
- Current Multimedia Capabilities
- Animation and the Web
- Audio and the Web
- Video and the Web
- Goals of a Multimedia Site
- Multimedia Site Design Basics
- User Interaction
- Selecting Multimedia Elements

## Ethical and Legal Issues in Web Development

Ethics and Law in Web Development

Ethical Issues and the Web  
Legal Issues and the Web

## HTML and the Evolution of Markup

Function of Markup Languages

SGML: A Short History

What Is HTML?

HTML Goals

The HTML Standard

HTML 1.0 and 2.0

HTML 3.0 and 3.2

HTML 4.0 and 4.01

Separating Format from Structure in HTML

Extensible HTML (XHTML)

Reference Sites for Web Developers

## XML and XHTML

What Is XML?

XML Goals

What Is an XML Document?

Rules for Well-Formed XML

HTML Transition to XML

What Is XHTML?

Applying a Single Standard Consistently

## Web Page Structure — Tables and Framesets

Creating Structure with X/HTML Tables

Diagramming a Basic X/HTML Table

Borderless Web Page Structure

X/HTML Frames and Framesets

The X/HTML <frameset> Tag

The X/HTML <frame> Tag

Targeting Hyperlinks in X/HTML

The X/HTML <noframes> Tag

## Cascading Style Sheets

Style Sheets

Cascading Style Sheets

Defining and Using Styles

Changeable Style Attributes

Style Guides

Changes from CSS1 to CSS2

Page Layout with CSS

The CSS Box Model

Document Flow and Positioning

CSS Positioning Schemes

## Site Content and Metadata

Written Web Site Content

Internet Marketing and Search

Engine Optimization (SEO)

Metadata

The <meta> Tag and Document Identification

The <meta> Tag and Search Engines

The <meta> Tag and Delayed File Change

## Site Development with Microsoft Expression Web 3 — Introduction

The Transition from FrontPage

Microsoft Expression Web 3

Expression Web Views

Expression Web Menus and Toolbars

Opening Web Sites and Files in Expression Web

Developing W3C-Compliant Code with Expression Web

## Site Development with Expression Web 3 — Basic Features

Page Layout Options in Expression Web

Creating a New Web Site Using Expression Web

Page Layout with CSS

Inserting Images with Expression Web

Creating Hyperlinks with Expression Web

Creating Image Maps with Expression Web

Creating Navigation Bars Using CSS

Expression Web's Dynamic Web Templates

Pasting Formatted Text with Expression Web

Pasting X/HTML content with Expression Web

## Site Development with Expression Web 3 — Advanced Features

Expression Web Styles

Adding Interactivity to Web Pages

Creating Web Forms with Expression Web

Connecting to Databases

Expression Web Reports

Options for Replacing Old Webbots

## Site Development with Adobe Dreamweaver CS5 — Introduction

Adobe Dreamweaver CS5

Dreamweaver Layout Options

## Site Development with Dreamweaver CS5 — Basic Features

Page Layout in Dreamweaver

Creating Image Maps in Dreamweaver

Creating Templates in Dreamweaver

Importing Content in Dreamweaver

## Site Development with Dreamweaver CS5 — Advanced Features

Rollover Images in Dreamweaver

Dreamweaver Web Forms

Dreamweaver Behaviors

Dreamweaver Assets and Library  
Editing X/HTML in Dreamweaver  
Jump Menus in Dreamweaver  
Site Search Forms in Dreamweaver  
Adobe Exchange

## Creating Web Pages Using Open-Source Tools

Open-Source GUI Editors

GUI HTML Editors vs. Text Editors

Open-Source Text Editors

Creating a Static Web Page

Using Templates

Checking Spelling

## Image Editing with Adobe Fireworks CS5

Adobe Fireworks CS5

Creating an Image Document in Fireworks

Adding Text to Images in Fireworks

Cropping Images in Fireworks

Image Layers in Fireworks

Image States in Fireworks

Transparent Images in Fireworks

Image Slices in Fireworks

## Multimedia with Adobe Flash Professional CS5

The History of Flash

Flash Technology Features

Developing with Flash

Flash Shapes

Color and Fills in Flash

Multimedia with Flash Professional CS5 — Timeline, Layers, Symbols and Buttons

Flash Timeline

Flash Layers

Saving and Publishing Flash Movies

Flash Symbols

Flash Buttons

Customizing the Flash Library

## Multimedia with Flash Professional CS5 — Tweens

Flash Tweens

Motion Tweens in Flash

Shape Tweens in Flash

Tweening Text in Flash

## Multimedia with Flash Professional CS5 — Movie Clips

Flash Movie Clips

Adding Sound to Flash Files

Adding Flash Movies to X/HTML Files

Testing for the Flash Player Plug-In

## Multimedia with Flash Professional CS5 — ActionScript, Masks and Practical Uses

Flash ActionScript

Mask Layers in Flash

Using SWF and SVG Files on the Web

Flash and Accessibility

## JavaScript and DHTML

### Fundamentals

Why Script?  
JavaScript and Common Programming Concepts  
What Is JavaScript?  
JavaScript vs. Other Languages  
Embedding JavaScript into X/HTML  
Using JavaScript to Communicate with the User  
JavaScript Functions  
Using JavaScript for Browser Detection  
Dynamic HTML (DHTML)

### Plug-Ins and Java Applets

Plug-In Technology  
Plug-In Installation  
Adobe Shockwave and Flash Players  
Adobe Reader  
RealNetworks RealPlayer

Rich Media Content  
Creating a Downloadable File  
Introduction to Java  
Java Applets  
Applets and Animation  
Applet Authoring Tools and Resources

### HTTP Servers and Web Applications

What Is an HTTP Server?  
Accessing Servers and Services  
Basic HTTP Server Administration  
Server-Side Technologies  
Web Servers and Cookies  
Enabling, Disabling and Deleting Cookies  
Setting Cookie Files  
XML and Web Applications  
Syndicated Feeds

### Databases

Web Design and Databases

Database Anatomy  
Database Queries  
Database Management System (DBMS)  
Connecting Web Pages to Databases  
Database Tools, Products and Programs

### Web Site Publishing and Maintenance

Web Site Testing  
Web Site Publishing  
Web Site Hosting  
Web Publishing with an FTP Client  
Web Publishing with Expression Web  
Web Publishing with Dreamweaver  
Comparing Web Publishing Tools  
Maintaining Web Sites  
Web Server and Web Site Security

## Target Audience

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Web authors, marketing and communications professionals, PR professionals, Webmasters, graphic designers, desktop designers, technical writers, and library scientists.

## Job Responsibilities

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Implement and maintain hypertext -based Web sites using authoring and scripting languages; create Web content; use Web management tools and digital media tools; and apply human-factor principles to design.

## Prerequisites

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Students taking this course need a basic understanding of Internet functionality and tools, and X/HTML. No prerequisite courses or certifications are required prior to taking this course or the corresponding certification exam. However, the course and exam are challenging and comprehensive. CIW offers the Web Foundations Associate curriculum to provide the base of foundational X/HTML and Internet knowledge necessary for this course. The CIW Foundations courses are not required, but for many candidates they are extremely helpful.