



40410: JavaScript, HTML and CSS Web Development

Course ID #: 7000-410-ZZ-Z

Hours: 14

Course Content

Course Description:

This course introduces HTML, JavaScript and CSS as programming and markup languages that are used to create web applications. The learner will gain experience with each language individually and then combine them together to create compelling web application solutions. The learner will have an opportunity to use Visual Studio Code on their operating system of choice to create and test their web applications. This course teaches basic tasks that are necessary to create web applications with a strong semantic structure, re-usable style components and custom interactive features. This course includes hands-on labs that enables the learner to build basic HTML pages that are the components of a web application used to solve real world problems.

At Course Completion:

After competing this course, student will be able to:

- Explore the historical context and justification for HTML
- Create HTML5 documents
- Use HTML elements to add content to a HTML page
- User hyperlinks to connect various HTML pages together
- Capture user input using forms
- Create content using HTML5 semantic elements
- Create SVG Graphics
- Create CSS stylesheets
- Author sophisticated CSS rule sets and selectors
- Lay out HTML elements using CSS margin and padding
- Implement program logic using JavaScript
- Leverage HTML5 APIs using JavaScript
- Implement advanced web applications using jQuery, AngularJS, Bootstrap, TypeScript or Sass

Prerequisites:

To have success in completing this workshop, students should either complete the related free edX course on JavaScript, HTML, and CSS Web Development or have the equivalent background knowledge. Some light experience with software development is helpful but not necessary.



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Target Student:

The target audience for this training course is individuals who are interested in learning about the core skills necessary for web development. This course is intended for individuals of all levels. Some light experience with software development is helpful but not necessary.

Topics:

Module 1: Creating Web Pages using Hypertext

Markup Language (HTML)

- Introduction to HTML
- Document Structure and Layout
- Basic HTML Elements
- Formatting HTML Elements
- Hyperlinks

Lab : Creating Web Pages using HTML

- Configure your Development Environment
- Using Various HTML Elements on a HTML Page

Module 2: Creating Sophisticated Document Structures using HTML

- Capturing User Input
- HTML5 Semantic Elements
- Scalable Vector Graphics (SVG)
- Implementing Media Controls

Lab : Creating Sophisticated Document Structures

- Adding Additional HTML Features to Your Web Page

Module 3: Designing Web Pages Elements using Cascading Style Sheets (CSS)

- Introduction to CSS
- Style Definitions
- Style Inheritance
- Box Model
- Fonts

Lab : Designing Web Page Elements using CSS

- Styling Your Web Page Using CSS

Module 4: Implementing Program Flow using JavaScript (JS)

- Introduction to JavaScript
- JavaScript Types
- JavaScript Callbacks
- Advanced JavaScript
- HTML5 APIs

Lab : Implementing Program Flow using JavaScript

- Implement An Image Carousel in JavaScript

Module 5: Adding External Libraries to Enhance HTML Applications

- jQuery
- AngularJS
- Bootstrap
- TypeScript
- Sass

Lab : Adding External Libraries to HTML

- Modernize Your Web Page