

Foundations of Web Development Course Outline

Course Objective

Over the duration of 10 weeks, this course will present students with the information and skills needed to use HTML, CSS, and JavaScript to build responsive websites. The course will include presentations, demonstrations, exercises, assignments, quizzes, and two bigger projects: one personal and one completed with the whole class. Beginning with web basics and ending with JavaScript & jQuery, students will leave the course with the necessary skills and knowledge to jumpstart their career in web development.

Course Outline

Part 1: Course Overview, Technology Set-up, Overview of Design & Design Process

- Course Overview, Class Introductions, Technology Set-up & Demonstrations, Walkthrough of HTML & CSS (what it looks like, how it works, etc.)
- Introduction to Development Tools + Demonstrations, Overview of Basic Design Principles & Best Practices, Instructor-Led Simple Coding Demonstrations
- Introduction to User Experience & User-Centered Design, Web Usability & Accessibility, More on Design Principles & Best Practices
- Basic Project / Folder Set-up, Basic Page Set-up, Design Files & Assets, Sketching / Wireframing, Creating Page Mockups + Design Technology Set-up & Demonstration

Part 2: Introduction to HTML & CSS

- More on HTML Markup Code, Tag Structure, Elements, Attributes, Other HTML Content
- Images & Video, Media Optimization, Inserting Media into Webpages Using HTML
- More on CSS—Basic Structure, Markup, Symbols, etc., Rules & Selectors + Declarations; CSS Color, etc.
- Classes & IDs, Divs, etc.; CSS Box Model, Positioning, Layout, etc.

Part 3: Advanced HTML & CSS, Responsive Design

- Advanced Page Layout & List-based Navigation, Columns & Column Structures, HTML Forms, Web Fonts

- Intro to Responsive Design: Explanation, Examples, Demonstrations; Intro to Bootstrap Framework: Explanation & Demonstration
- Media Queries, Designing for the Mobile Web
- CSS Animation, Flexbox

Part 4: Introduction to JavaScript

- Basic Usage & Syntax, Demonstration of How it Works / Why & When to Use It, Adding JavaScript to Pages, Debugging
- JavaScript Statements & Commands, Different Types of Data, Variables, Arrays, Objects
- DOM, Scope, Functions, Strings, Conditional Statements, Loops, Events
- More on JavaScript Events, DOM Events and Event Handling

Part 5: Advanced JavaScript & Introduction to jQuery

- JavaScript Form Validation, Introduction to jQuery: Explanation & Demonstration of How it Works / Why & When to Use It, Downloading jQuery Library + Other Set-up Demonstrations
- jQuery Events, Effects, Document Ready, Objects
- Ajax: Key Concepts, Ajax-related Methods, Forms, Events
- JSON, jQuery Plugins