

Build Responsive Websites with HTML5, CSS3, JS & Bootstrap

Learn to create modern, responsive sites from scratch using HTML5, CSS3, JavaScript, jQuery, and Bootstrap for web developers.

Web & Mobile Design

Instructor: Morgan Blake • 5 sections • 53 lessons • 18.50h total

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About this course

Building a website that works on any device requires integrating multiple technologies correctly. Many developers hit roadblocks when trying to combine HTML5, CSS3, JavaScript, and Bootstrap into a cohesive, responsive design. This course addresses that challenge by guiding you through each layer step by step. You'll start with semantic HTML5, move to flexible CSS3 layouts, add interactivity with JavaScript and jQuery, and speed up development with Bootstrap. The course includes video tutorials, real-world projects, and hands-on examples to help you apply what you learn immediately.

Course curriculum

HTML5 Foundations

- **HTML5 Document Structure and Semantic Tags (18m)**
Learn how to set up an HTML5 document and use semantic elements like header, nav, and footer for better accessibility and SEO.
- **Text and Media Elements in HTML5 (12m)**
Covers headings, paragraphs, links, images, lists, and tables to build the content foundation of your web pages.
- **Building Forms with HTML5 Input Types (22m)**
Step-by-step guide to creating forms using modern input types like email, date, and range, plus validation attributes.
- **HTML5 Form Validation Techniques (15m)**
Implement client-side validation to improve user experience and data integrity without extra code.
- **Introduction to HTML5 APIs: Storage and Geolocation (25m)**
Explore localStorage for data persistence and the Geolocation API for location-based features.
- **Multimedia Integration with Audio and Video Tags (10m)**
Embed audio and video directly into your pages using HTML5 tags with fallbacks for older browsers.
- **Project: Creating a Multi-Page Website Skeleton (30m)**
Apply everything learned to build a multi-page website structure with semantic HTML5, ready for styling.

CSS3 Styling & Layout Techniques

- **CSS Selectors and the Box Model (18m)**
Understand how CSS targets elements and how the box model controls spacing and borders.
- **Specificity and Cascading Rules (12m)**
Learn how browsers decide which styles apply when multiple rules conflict.
- **Typography and Colors in CSS (15m)**
Set fonts, line-height, and colors to enhance readability and visual appeal.
- **Backgrounds and CSS Custom Properties (20m)**
Use backgrounds for images and gradients, and manage colors with CSS variables for easy theming.
- **Flexbox for Responsive Layouts (25m)**
Build flexible layouts that adapt to different screen sizes using Flexbox properties.
- **CSS Grid for Complex Page Structures (28m)**
Create grid-based layouts for more control over rows and columns in your designs.
- **CSS Transitions and Transforms (18m)**
Add smooth transitions and transformations to elements for interactive effects.
- **CSS Animations for Dynamic Content (22m)**
Create keyframe animations to bring your website to life with movement.
- **Media Queries for Responsiveness (15m)**
Apply styles based on device characteristics to ensure your site looks good on all screens.

- **Project: Styling the Website Skeleton (35m)**
Transform the HTML skeleton into a polished, mobile-friendly website using CSS3 techniques.

JavaScript & jQuery Essentials

- **JavaScript Basics: Variables and Data Types (18m)**
Get started with JavaScript by understanding variables, data types, and basic operations.
- **Functions and Control Flow in JavaScript (20m)**
Write functions and use loops and conditionals to control program flow.
- **DOM Manipulation with JavaScript (25m)**
Access and modify HTML elements dynamically using the Document Object Model.
- **Event Handling for User Interactions (18m)**
Respond to user actions like clicks and inputs to make your site interactive.
- **Form Validation with Vanilla JavaScript (22m)**
Implement custom validation logic to enhance form usability and data accuracy.
- **Introduction to jQuery: Selectors and Events (15m)**
Simplify DOM manipulation and event handling with jQuery's concise syntax.
- **jQuery Effects and AJAX Calls (20m)**
Add animations and load data from servers without page reloads using jQuery.
- **Building Modals and Tabs with jQuery (25m)**
Create reusable UI components like modals and tab interfaces for better user experience.
- **Creating an Image Slider with jQuery (22m)**
Build a responsive image carousel to showcase visual content effectively.
- **Project: Adding Interactivity to the Website (30m)**
Integrate JavaScript and jQuery to add dynamic features like form validation and interactive elements.

Bootstrap Framework Integration

- **Setting Up Bootstrap 5 in Your Project (12m)**
Learn how to include Bootstrap via CDN or download and structure your project files.
- **Understanding Bootstrap Grid and Breakpoints (20m)**
Master the grid system to create responsive layouts that adapt to different devices.
- **Building Navigation with Bootstrap Navbar (18m)**
Create responsive navigation bars with dropdowns and mobile toggles.
- **Using Bootstrap Cards for Content Display (15m)**
Organize information into cards with images, text, and actions for clean layouts.
- **Carousels and Sliders in Bootstrap (22m)**
Implement image and content carousels to highlight key sections.
- **Accordions and Modals for Interactive Content (20m)**
Add collapsible accordions and modal dialogs for user engagement.
- **Bootstrap Utilities for Spacing and Display (18m)**
Use utility classes to quickly adjust margins, padding, and visibility.
- **Responsive Helpers and Flex Utilities (15m)**
Control layout behavior across screen sizes with responsive utility classes.

- **Customizing Bootstrap with Sass Variables (25m)**
Modify Bootstrap's default themes by overriding Sass variables for a unique design.
- **Overriding Bootstrap Themes and Styles (20m)**
Learn to customize components beyond variables with custom CSS.
- **Project: Rebuilding the Website with Bootstrap (35m)**
Reconstruct your website using Bootstrap components for a consistent, responsive design.
- **Advanced Bootstrap: Forms and Inputs (18m)**
Style forms with Bootstrap classes for better usability and appearance.

Capstone - Full Responsive Website Build

- **Planning Site Architecture and Wireframes (20m)**
Start the capstone by outlining the site structure and creating wireframes for guidance.
- **Mobile-First Design Strategy (15m)**
Adopt a mobile-first approach to ensure your design works well on small screens first.
- **Integrating HTML5 and CSS3 in the Capstone (25m)**
Apply semantic HTML and advanced CSS to build the foundation of your final project.
- **Adding JavaScript Logic and Bootstrap Components (30m)**
Enhance functionality with JavaScript and use Bootstrap for consistent UI elements.
- **Performance Optimization: Lazy Loading (18m)**
Implement lazy loading for images and content to improve page load times.
- **Minification and Compression Techniques (22m)**
Reduce file sizes with minification tools to boost website performance.
- **Accessibility Best Practices (WCAG) (20m)**
Ensure your website is accessible to all users by following WCAG guidelines.
- **Cross-Browser Testing Strategies (15m)**
Test your site across different browsers and devices to catch compatibility issues.
- **Debugging with Browser DevTools (25m)**
Use developer tools to inspect, debug, and optimize your code efficiently.
- **Preparing for Deployment (18m)**
Get your project ready for live deployment with final checks and optimizations.
- **Deploying to a Live Server (20m)**
Step-by-step guide to hosting your website on a live server using common platforms.
- **Final Project: Building the Complete Website (40m)**
Apply all skills to build the full responsive website from start to finish.
- **Final Project: Testing and Refinement (30m)**
Test the website thoroughly and make refinements based on feedback and best practices.
- **Final Project: Launch and Review (25m)**
Launch the website and review the project outcomes for learning reinforcement.

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