

CSS Essentials

Web Development Essentials Series

SCOPE & SEQUENCE

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Target Audience

The **CSS Essentials** course is designed for learners who want to build a strong foundation in CSS, the language that styles the web. Whether you're starting with basic HTML knowledge or looking to enhance your ability to design and structure web pages effectively, this course offers a structured and practical approach to learning CSS.

It will particularly appeal to:

- **Aspiring web developers** looking to gain essential skills in styling and structuring web pages.
- **Learners and self-learners** interested in front-end web development, web design, and user experience (UX) design.
- **Industry professionals** who want to expand their technical skill set and collaborate more effectively with development teams.
- **Graphic designers and content creators** seeking to improve their understanding of web page styling and layout techniques.
- **Entrepreneurs and business owners** who want to design and manage their own websites.
- **Project managers and product managers** looking to better understand the web development process to work effectively with designers and developers.
- **Anyone interested in learning CSS** for career growth, personal projects, or as a foundation for advanced web technologies.

By the end of this course, learners will have the skills to create visually appealing, responsive, and well-structured web pages, setting the stage for more advanced topics in **modern front-end development**.

Prerequisites

This course has no formal prerequisites, making it ideal for beginners. However, learners should have a **basic understanding of HTML** and how web pages are structured.

No prior experience with CSS is required, but familiarity with fundamental web concepts such as text formatting, document structure, and hyperlinks will be helpful.

If you have completed **HTML Essentials**, this course is the natural next step to further develop your web development skills.

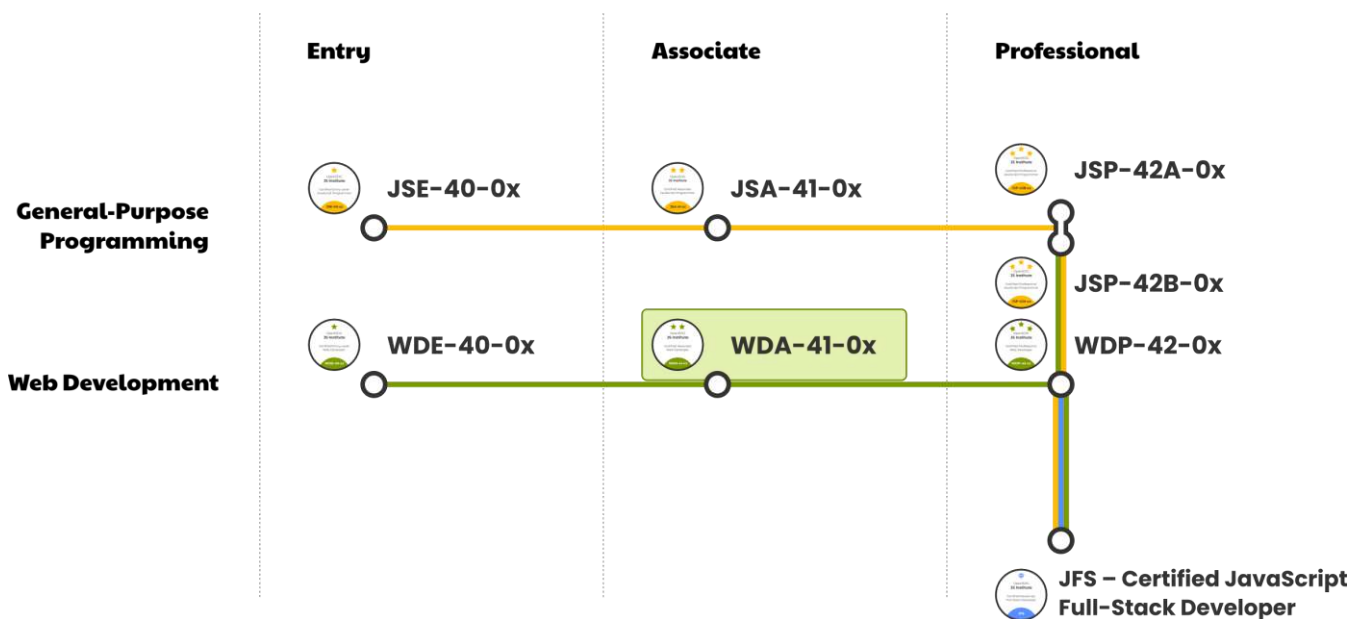
Certification Alignment

The **CSS Essentials** course, together with **HTML Essentials**, helps learners develop the necessary skills to design, style, and structure modern web pages using HTML and CSS. These two courses provide a strong foundation in front-end web development, preparing learners for industry-recognized [WDA™ – Certified Associate Web Developer](#) certification.

The **WDA™** certification covers the following areas:

- HTML fundamentals, including document structure, semantic elements, and multimedia integration
- CSS syntax, selectors, and rule application for styling web pages effectively
- Box model, spacing, and positioning techniques to control layout and design
- Responsive design using media queries, Flexbox, and CSS Grid to ensure optimal user experiences across devices
- CSS animations, transitions, and interactivity to create engaging web content
- Best practices in accessibility, usability, and performance optimization
- Debugging and validating HTML and CSS code to maintain clean, structured, and error-free web pages

By completing this course, learners will gain the skills needed to **effectively design and develop structured, visually appealing, and accessible web content**, preparing them for the **WDA™** certification and further specialization in web development.



Course Description

CSS Essentials is the **second course** in the **Web Development Essentials** series, following up where **HTML Essentials** leaves off. Developed by [JS Institute](#), this course is designed to help learners move beyond basic HTML and gain proficiency in CSS, the language that controls the **styling, layout, and responsiveness** of modern web pages.

This course covers CSS syntax, selectors, colors, backgrounds, layout techniques, responsive design, animations, and accessibility best practices. Learners will develop the skills needed to style web pages effectively, create visually engaging user interfaces, and ensure cross-browser compatibility.

The course is divided into **nine modules**, each progressively building essential CSS skills. Learners will engage with **hands-on labs and assessments** to reinforce their knowledge and apply what they've learned to real-world web development projects.

By completing this course, learners will be well-prepared to attempt the **WDA™ – Certified Associate Web Developer** certification exam, demonstrating their ability to style and structure professional web pages.

Course Objectives

By the end of **CSS ESSENTIALS**, learners will be able to:

1. Understand the role of CSS in web development and how it interacts with HTML.
2. Identify and apply CSS syntax, properties, and selectors.
3. Use class, ID, and attribute selectors to target HTML elements effectively.
4. Apply the CSS box model, including margins, padding, borders, and content spacing.
5. Utilize color models and background properties to enhance web page aesthetics.
6. Format text with font properties, text alignment, and spacing for readability and design.
7. Implement positioning techniques, including static, relative, absolute, and fixed positioning.
8. Use Flexbox and CSS Grid to create modern, flexible, and responsive layouts.
9. Implement media queries to design responsive websites for different screen sizes.
10. Optimize web design by using CSS shorthand properties for efficiency and maintainability.
11. Apply CSS transitions and animations to create engaging user interactions.
12. Enhance user experience with hover effects and interactive styling techniques.
13. Utilize CSS variables for managing reusable styles across a web project.
14. Implement Z-index and layering techniques for proper element stacking and layout control.
15. Understand and apply CSS frameworks like Bootstrap for rapid development.
16. Use CSS preprocessors such as Sass or Less to write scalable and modular styles.
17. Optimize CSS performance through minification, compression, and best coding practices.
18. Ensure accessibility compliance by using proper contrast ratios, font sizes, and alternative text styling.
19. Debug and validate CSS code using browser developer tools to fix common styling issues.
20. Integrate HTML and CSS effectively to build structured, styled, and interactive web pages.
21. Link and manage external stylesheets properly to ensure a well-organized web project.

Additionally, learners will be well-prepared to attempt the **WDA™ – Certified Associate Web Developer** certification exam, demonstrating their foundational skills in **HTML, CSS, and front-end web development**.

Equipment Requirements

The course is accessible online through any modern web browser. To participate, learners need an active internet connection and a device with a web browser.

For the best learning experience, we recommend using a **laptop or computer** with a **relatively large screen** for better visibility while writing code, along with the latest version of Mozilla Firefox, Microsoft Edge, or Google Chrome.

Course Outline

A learner who has completed the **CSS ESSENTIALS** course will have acquired:

- a strong foundation in CSS3, including the ability to style and layout web pages effectively
- the ability to write, debug, and optimize CSS code for structured, responsive, and accessible web content
- proficiency in using CSS selectors, properties, and rule application to control web design
- an understanding of the CSS box model, spacing, margins, padding, and positioning techniques
- the ability to create responsive web designs using media queries, Flexbox, and CSS Grid
- knowledge of CSS transitions, animations, and interactivity to enhance user experience
- the skills needed to prepare for the **WDA™ – Certified Associate Web Developer** exam and obtain the corresponding certification
- a foundation for further specialization in front-end web development, including JavaScript, UI/UX design, and modern web frameworks
- the ability to apply CSS skills in front-end development roles, digital design, and user experience
- the opportunity to continue personal development through self-education, advanced web development coursework, and industry certifications

The following overview details the course modules and their associated competencies. Each module is a structured unit of learning that includes content, activities, and assessments designed to develop specific skills. The depth and scope of each module vary based on the complexity of the topics covered.

Module 1: CSS Basics

Introduction to CSS fundamentals, including its role in web development, ways to apply styles to HTML documents, and the organization of stylesheets. Learners will explore CSS syntax, selectors, and specificity rules.

After completing Module 1, the learner will:

- understand the purpose of CSS and how it styles web content
- apply CSS using inline, internal, and external stylesheets

- structure and organize CSS files for maintainability
 - use basic CSS selectors and properties to apply styles
 - understand specificity, inheritance, and the CSS cascade
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Module 2: Properties and Values

Exploration of core CSS properties used for styling elements, including colors, backgrounds, text, lists, images, and links. Learners will work with shorthand properties and understand their benefits.

After completing Module 2, the learner will:

- apply colors and background properties to enhance design
 - style text using font families, sizes, spacing, and alignment
 - format lists and hyperlinks with appropriate styling properties
 - use shorthand properties for improved efficiency
 - implement best practices for readable and accessible text
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Module 3: The Box Model

Introduction to the CSS box model and its role in element layout. Learners will explore spacing, borders, dimensions, and positioning techniques to control page structure.

After completing Module 3, the learner will:

- understand how the box model defines element boundaries
 - manipulate margins, padding, borders, and width/height properties
 - control content layout using different display properties
 - work with positioning techniques, including static, relative, absolute, and fixed positioning
 - use visibility and overflow properties to manage content display
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Module 4: Floats and Media Queries

Focus on layout techniques using floats, multi-column layouts, and media queries for responsive design. Learners will explore how to create adaptable designs across different screen sizes.

After completing Module 4, the learner will:

- create multi-column layouts using float-based techniques

- implement media queries for adaptive web design
 - apply fluid design principles for flexible content display
 - design layouts that adjust for various devices and screen sizes
 - ensure consistency and usability across different viewports
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Module 5: Flexbox and CSS Grid

Introduction to modern layout techniques using Flexbox and CSS Grid. Learners will gain hands-on experience in structuring page content efficiently and responsively.

After completing Module 5, the learner will:

- apply Flexbox properties to arrange content dynamically
 - structure page layouts using CSS Grid for complex designs
 - control alignment, distribution, and responsiveness of elements
 - optimize page structures for different screen sizes
 - combine Flexbox and Grid effectively for modern layouts
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Module 6: Transitions and Interactivity

Exploration of CSS animations, transitions, and interactivity. Learners will apply visual effects and responsive behaviors to enhance user experience.

After completing Module 6, the learner will:

- use transitions to create smooth animations and effects
 - implement keyframe-based CSS animations
 - apply hover, focus, and active states for interactive elements
 - enhance user experience through animated interactions
 - ensure performance optimization in animation-heavy designs
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Module 7: Bootstrap

Introduction to CSS frameworks, focusing on Bootstrap for rapid design and layout development. Learners will explore Bootstrap's grid system, utility classes, and components.

After completing Module 7, the learner will:

- understand the benefits of using CSS frameworks
 - implement responsive design with the Bootstrap grid system
 - use Bootstrap components to build consistent UI elements
 - apply utility classes for faster and efficient styling
 - customize Bootstrap with additional CSS for personalized designs
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Module 8: Sass and Less

Introduction to CSS preprocessors and how they streamline development. Learners will explore how Sass and Less improve efficiency through variables, mixins, and nested styling.

After completing Module 8, the learner will:

- understand the purpose of CSS preprocessors in modern development
 - write reusable and scalable styles using Sass or Less
 - work with variables, nesting, and mixins to simplify styling
 - compile and integrate preprocessed CSS into projects
 - optimize workflow by structuring CSS code efficiently
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Module 9: Accessibility

Focus on creating inclusive and accessible web designs. Learners will implement styling techniques to improve contrast, readability, and usability for diverse audiences.

After completing Module 9, the learner will:

- apply contrast and color accessibility principles
 - adjust font sizes and spacing for better readability
 - ensure content is accessible for screen readers and assistive technologies
 - evaluate and enhance usability for different user needs
 - follow best practices for designing inclusive web content
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Each module builds on the previous one, providing a structured learning experience that prepares learners for real-world web development and the **WDA™ – Certified Associate Web Developer** certification.

Support and Inquiries

For any questions regarding the WDA™ certification, including exam orders, purchasing vouchers, and certification-related inquiries, please contact services@openedg.org.

If you encounter any issues or would like to report a bug, please reach out to bugreports@openedg.org.

For inquiries related to course delivery, technical issues, instructor support, or access to learning materials, please contact Cisco Networking Academy Support.

Thank you, and we hope you enjoy the course!