

Advanced HTML & CSS Course (Self-Paced)

Advance your CSS skills at your own pace with this in-depth self-paced course. Explore advanced techniques such as SVG styling, CSS variables, gradients, shadows, positioning, transitions, transforms, and responsive images to create polished, professional-quality webpages.

Group classes in Live Online and onsite training is available for this course. For more information, email onsite@graduateschool.edu or visit: <https://www.graduateschool.edu/courses/advanced-html-css-self-paced>



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Course Outline

Section 1

Starting a New Website from Scratch & Emmet Shortcuts

- Creating a new HTML page with Emmet shortcuts
- Adding content & styling it

Variable Fonts (from Google Fonts) & Unitless Line-Height

- Adding custom web fonts from Google Fonts
- Using font-weight
- Unitless line-height

Styling the Navbar

- Styling the Navbar
- Hover & Focus Link Styles

CSS Box Model: Content-Box vs. Border-Box

- How border-box is different than content-box
- Visualizing the box model in Chrome's DevTools
- Fixing spacing issues around images
- Flexible padding: using percentage amounts

Section 2

SVG Sizing (Width & Height) and Embedding SVG

- How Width & Height Affect Sizing of SVG

- Embedding SVG (instead of linking)
- Styling SVG using CSS

- Using `currentColor`

CSS Position Property

- Static position & the normal document flow
- Relative position
- Absolute position
- The dynamic duo: relative parent, absolute child
- Fixed position

Fixed Position Navbar, RGBA, & Backdrop Filters

- Creating a fixed navbar on wide & tall screens
- RGBA color
- Blurring & desaturating a background with CSS backdrop filters

Improvements for Mobile Devices

- Preventing mobile text size adjustment
- Preventing a fixed navbar on short screens
- Dealing with the iPhone's dynamic island (or notch)
- CSS `calc()`

Section 3

Background Gradients & Text Gradients

- CSS background gradients
- CSS text gradients

Multiple Backgrounds, Viewport Sizing (vw), & Clamp

- Multiple backgrounds on a single element
- Colorizing a photo by overlaying a transparent gradient
- Using viewport sizing units (vw)
- Using Clamp to set a min & max font size

Creating Columns with Flexbox

- Displaying content as columns using Flexbox
- Vertical alignment with Flexbox

Pseudo-Elements & the Content Property

- Using pseudo-elements
- The content property
- Seeing pseudo-elements in Chrome's DevTools

Section 4

Attribute Selectors

- Adding link icons with attribute selectors

- “Ends with” attribute selector
- “Begins with” attribute selector
- “Contains” attribute selector

Relational Selectors

- Using first-child & last-child
- Using first-of-type
- Using nth-child
- Direct child/descendant selectors

CSS Variables (Custom Properties)

- Defining & using CSS variables
- The power of inheritance

Light & Dark Modes using CSS

- Styling webpages for light & dark modes
- Previewing light & dark modes in Chrome DevTools
- “Alt” text for embedded SVGs

Section 5

Creating Forms with HTML

- Creating a form & text inputs with labels
- Adding an email input, submit button, textarea, & select menu
- Fieldset, legend, & radio buttons
- Checkbox vs radio button

Styling Forms (with Attribute Selectors)

- Styling form elements
- Targeting inputs with attribute selectors

Relative Sizes: Em and Rem

- Em units
- Rem units

Section 6

Off-Screen Side Nav Using Only CSS

- Responsive off-screen navigation
- Toggling the navigation with a checkbox
- CSS transitions

Box-Shadow, Text-Shadow, & Z-Index

- Using the CSS box-shadow property
- Changing an element’s default stack order with position and z-index
- Inset shadows
- Adding drop shadows to text with CSS text-shadow
- Layering multiple text-shadows for a detached outline effect

CSS Transitions

- Using CSS transitions to animate elements on hover
- Adding easing
- Custom easing with Ceaser

CSS Transforms with Transitions

- Testing transforms using the DevTools
- Adding a scale transform & transitioning it
- Transform origin
- Adding a rotate transform
- Using the translate transform to nudge elements