

# Advanced HTML & CSS

Take your CSS skills to the next level with this comprehensive training course. Learn about advanced topics such as SVG, CSS variables, gradients, shadows, positioning, transitions, transforms, responsive images, and more to help you code professional-looking webpages.

Group classes in Live Online and onsite training is available for this course. For more information, email [onsite@graduateschool.edu](mailto:onsite@graduateschool.edu) or visit: <https://sdfm.graduateschool.edu/courses/web-development-level2>



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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

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- 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