

# **WEB-DESIGNING WITH HTML AND CSS**

**2024-2025**

## **Learning Objectives**

1. The structure, elements, and meaning of HTML will be introduced so that well-organised webpages can be created.
2. Methods for adding text, media, tables, and forms using standard HTML tags will be taught.
3. A strong foundation in CSS syntax, selectors, and the box model will be provided for webpage styling.
4. Skills in modern layout techniques, including CSS Grid, positioning, and responsive design, will be developed.
5. Advanced CSS features such as transitions, animations, transformations, and variables will be explained.
6. CSS preprocessors (SASS/SCSS) and best practices for writing clean and maintainable stylesheets will be introduced.
7. Awareness of web accessibility and the use of semantic elements for inclusive design will be encouraged.

## **Learning Outcomes**

1. Clean and well-structured HTML pages using semantic tags and essential elements will be created by students.
2. Images, audio, video, forms, and tables will be correctly added to webpages.
3. CSS selectors, combinators, and the box model will be applied to design visually appealing layouts.
4. Responsive, grid-based, and multi-section layouts suitable for various screen sizes will be built.
5. Advanced CSS features such as animations, transitions, and transformations will be used for custom styling.
6. Maintainable CSS using variables and SASS/SCSS features like nesting, mixins, and partials will be written.
7. Accessible and user-friendly webpages will be created, and a complete capstone project will be produced to show full HTML/CSS skills

**Module:**

<i>Topic</i>	<i>Objective</i>
Introduction to HTML	History, Basic Structure of an HTML Document, Tags, Elements, Attributes
Basic HTML Elements	Headings, Paragraphs, Lists (Ordered, Unordered), Links
Working with Images and Media	Adding Images, Image Attributes, Embedding Videos and Audio
HTML Forms Part 1	Form Element, Input Types, Labels, Text Areas, Buttons
HTML Forms Part 2	Dropdowns, Checkboxes, Radio Buttons, Form Validation
HTML Tables	Table, tr, th, td Elements, Table Attributes, Merging Cells (rowspan, colspan)
HTML5 Semantic Elements	header, footer, article, section, nav, aside
Introduction to CSS	What is CSS, Inline, Internal, External CSS, Basic Syntax
Selectors and Combinators	Basic Selectors, Class and ID Selectors, Attribute Selectors, Pseudo-classes, Pseudo-elements
CSS Box Model	Content, Padding, Border, Margin, Box Sizing
CSS Display and Positioning	display Property, position (static, relative, absolute, fixed, sticky), z-index
CSS Grid Part 1	Introduction to Grid, Grid Container, Grid Items, Defining Columns and Rows
CSS Grid Part 2	Grid Areas, Grid Lines, Grid Template Areas, Grid Alignment
Responsive Web Design	Media Queries, Responsive Units (% , em, rem, vw, vh), Mobile-first Design
CSS Typography	Font Properties, Text Alignment, Text Decoration, Line Height, Letter Spacing
CSS Backgrounds and Borders	Background Color, Background Images, Border Properties, Border Radius
CSS Transitions and Animations	Transitions, Keyframes, Animation Properties

CSS Transformations	Transform Properties (scale, rotate, translate, skew)
Advanced CSS Selectors	nth-child, nth-of-type, first-child, last-child, not()
CSS Variables	Using Variables, Scope, Fallbacks, Using Variables in Media Queries
CSS Preprocessors	Introduction to SASS/SCSS, Variables, Nesting, Mixins, Partials, Extends
Building Layouts with CSS	Building Common Layouts (Header, Sidebar, Main Content, Footer), Best Practices
Web Accessibility	Importance of Accessibility, Semantic HTML, ARIA Roles, Keyboard Navigation
Review and Q&A	Reviewing Key Concepts, Addressing Questions, Troubleshooting Common Issues
Capstone Project Part 1	Starting the Capstone Project, Defining Objectives, Setting Up the Project
Capstone Project Part 2	Completing the Project, Presenting Findings, Course Summary and Feedback

## Attendance

Number of Classes: 30 Classes

Duration per Class: 1 hour

Number of Students enrolled: 17

Name	Classes Attended
Abanti Das	7
Ammaarah Habib	27
Anastasia Debnath	17
Asmita Masih	19
Barsha Chowdhury	22
Dibyangana Ghosh	17
Farin Khatoon	18
Grace Olivia Dolby	20
Harshita Bhardwaj	18

Name	Classes Attended
Jhanvi Jaiswal	22
Nausheen Masood	15
Rose Minj	13
Sreemonti Ray	18
Sugandha Samad	22
Tanisha Alam	4
Vibha Lakra	8
Namrata Karia	23