

Here's a **detailed syllabus** covering **HTML, CSS, and JavaScript**, including all topics, subtopics, and sub-subtopics.

HTML Syllabus

1. Introduction to HTML

- What is HTML?
- HTML History
- HTML Editors

2. HTML Elements & Attributes

- Basic Tags (``<html>``, ``<head>``, ``<title>``, ``<body>`)
- Heading Tags (``<h1>`` - ``<h6>`)
- Paragraph & Formatting Tags (``<p>``, ``
``, ````, ``<i>``, ``<u>``, ````, ````, ``<mark>`)
- HTML Attributes (``id``, ``class``, ``style``, ``title``, ``alt``, ``href`)

3. HTML Links & Navigation

- ``<a>` Tag (Internal & External Links)
- Open Links in New Tab (``target="_blank"`)
- Bookmarking with ``id`

4. HTML Lists

- Ordered List (```)
- Unordered List (```)

- Description List (``<dl>``, ``<dt>``, ``<dd>``)

5. HTML Tables

- Creating Tables (``<table>``, ``<tr>``, ``<td>``)
- Table Headings (``<th>``)
- Row & Column Span (``rowspan``, ``colspan``)

6. HTML Forms & Input

- Form Elements (``<form>``, ``<input>``, ``<textarea>``, ``<button>``, ``<select>``, ``<option>``)
- Input Types (``text``, ``email``, ``password``, ``number``, ``radio``, ``checkbox``, ``file``)
- Form Validation (``required``, ``min``, ``max``, ``pattern``)

7. HTML Multimedia

- Adding Images (````, ``alt``, ``src``)
- Audio (``<audio>``, ``<source>``)
- Video (``<video>``, ``<source>``, ``controls``, ``autoplay``)
- Embedding YouTube Videos

8. HTML Semantic Elements

- ``<header>``, ``<footer>``, ``<article>``, ``<section>``, ``<aside>``, ``<nav>``

9. HTML5 New Features

- Canvas & SVG
- Local Storage & Session Storage
- Geolocation API

- Drag and Drop API
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CSS Syllabus

1. Introduction to CSS

- What is CSS?
- Types of CSS (Inline, Internal, External)
- CSS Syntax & Selectors

2. CSS Selectors

- Basic Selectors (`*` , `element` , ` .class` , ` #id`)
- Attribute Selectors (`[type="text"]` , `[href^="https"]`)
- Pseudo-classes (`:hover` , `:focus` , `:first-child`)
- Pseudo-elements (`::before` , `::after`)

3. CSS Box Model

- Margin, Padding, Border
- Width & Height
- Overflow (`visible` , `hidden` , `scroll`)

4. CSS Positioning & Layouts

- Display Property (`block` , `inline` , `inline-block` , `none`)
- Position (`static` , `relative` , `absolute` , `fixed` , `sticky`)
- Float & Clear

5. CSS Flexbox

- Flex Container (`display: flex;`)
- Justify Content (`center` , `space-between` , `space-around`)
- Align Items (`stretch` , `center` , `flex-start` , `flex-end`)
- Flex Properties (`flex-grow` , `flex-shrink` , `flex-basis`)

6. CSS Grid

- Grid Container (`display: grid;`)
- Grid Template Rows & Columns
- Grid Gap, Grid Area

7. CSS Animations & Transitions

- CSS Transitions (`transition-property` , `transition-duration`)
- CSS Animations (`@keyframes` , `animation-name` , `animation-duration`)

8. Responsive Web Design (RWD)

- Media Queries (`@media (max-width: 768px)`)
- Mobile First Design
- Viewport Meta Tag

9. CSS Preprocessors (Optional)

- Introduction to SASS & LESS
- Variables & Nesting

JavaScript Syllabus

1. Introduction to JavaScript

- What is JavaScript?
- JavaScript History & Versions
- JavaScript Placement (Internal, External)

2. JavaScript Basics

- Variables (`var`, `let`, `const`)
- Data Types (String, Number, Boolean, Array, Object)
- Operators (`+`, `-`, `*`, `/`, `==`, `===`)

3. JavaScript Functions

- Function Declaration
- Function Expressions
- Arrow Functions (`=>`)
- Callback Functions

4. JavaScript Control Statements

- If-Else Statement
- Switch Case
- Loops (For, While, Do-While)

5. JavaScript Arrays

- Array Methods (`push()`, `pop()`, `slice()`, `splice()`)
- Iterating Arrays (`map()`, `forEach()`, `filter()`)

6. JavaScript Objects

- Object Properties & Methods
- Object Destructuring
- JSON (JavaScript Object Notation)

7. JavaScript DOM Manipulation

- Selecting Elements (`getElementById`, `querySelector`)
- Modifying Elements (`innerHTML`, `textContent`, `style`)
- Adding & Removing Elements (`appendChild`, `removeChild`)

8. JavaScript Events

- Event Listeners (`click`, `mouseover`, `keydown`)
- Event Bubbling & Capturing

9. JavaScript ES6+ Features

- Template Literals
- Destructuring Arrays & Objects
- Spread & Rest Operators
- Promises & Async/Await

10. JavaScript Asynchronous Programming

- Callbacks
- Promises (`then()`, `catch()`)
- Async/Await

11. JavaScript Modules

- Import & Export Modules (`import`, `export`)

12. JavaScript Error Handling

- Try, Catch, Finally
- Throwing Errors

13. JavaScript APIs & AJAX

- Fetch API
- XMLHttpRequest
- Working with REST APIs

This syllabus includes **all essential topics, subtopics, and sub-subtopics** for learning **HTML, CSS, and JavaScript**. Do you also want this structured into an **Excel sheet** for easy tracking?