

Odurinde.com: Introduction to Web Development

Duration: 12 Weeks (3 Months)

Week-by-Week Curriculum

Week 1 – Getting Started with Web Development

- **Topics:**
 - Course overview: expectations, outcomes, assessment style.
 - Introduction to Web Development (frontend, backend, full stack).
 - How the Internet works: clients, servers, DNS, IP, domains.
 - HTTP & HTTPS basics (requests, responses, status codes).
 - Browsers, and dev tools.
 - **Tools setup:** VS Code, Chrome, Live Server, Git Bash / Terminal, Git, Github.

Week 2 – Linux Command Line Basics

- **Topics:**

- Introduction to operating systems and shell.
- Navigating the file system: `pwd`, `ls`, `cd`.
- Creating, moving, copying, and deleting files/folders (`mkdir`, `rm`, `cp`, `mv`).
- Viewing files: `cat`, `less`, `head`, `tail`.
- File permissions & `chmod` basics.
- Using command line editors (`nano`, `vim` – optional).

Week 3 – Git & GitHub Essentials

- **Topics:**

- What is version control and why use Git?
- Configuring Git (username, email).
- Initializing repositories (`git init`).
- Tracking changes: `add`, `commit`, `status`, `log`.
- Working with branches: `branch`, `checkout`, `merge`.
- Connecting to GitHub: `clone`, `push`, `pull`.

- Collaboration basics: pull requests, conflict resolution.

Week 4 – HTML Foundations

- **Topics:**

- Structure of a web page: `<!DOCTYPE html>`, `<html>`, `<head>`, `<body>`.
- Elements, attributes, and nesting.
- Headings, paragraphs, links, images.
- Lists (ordered/unordered), tables.
- Forms: input types, labels, accessibility basics.
- Semantic HTML: `<header>`, `<nav>`, `<main>`, `<article>`, `<section>`, `<footer>`.

Week 5 – Advanced HTML & Intro to CSS

- **Topics:**

- Embedding media: `<audio>`, `<video>`, `<iframe>`.
- Linking external resources: CSS, JS, favicon.
- Introduction to CSS: selectors, properties, values.

- Colors (hex, RGB, HSL).
- Fonts, typography basics.
- Inline, internal, and external CSS.

Week 6 – CSS Layouts

- **Topics:**

- Box model (margin, padding, border).
- Display properties (block, inline, inline-block).
- Positioning: static, relative, absolute, fixed, sticky.
- Flexbox fundamentals.
- CSS Grid basics.

Week 7 – Responsive Design

- **Topics:**

- Mobile-first vs desktop-first.
- Media queries & breakpoints.

- Relative units: %, em, rem, vh, vw.
- Responsive images
- Accessibility in responsive design.

Week 8 – JavaScript Fundamentals

- **Topics:**

- Introduction to programming with JavaScript.
- Variables & data types.
- Operators (arithmetic, comparison, logical).
- Control structures: if/else, loops.
- Functions: declarations, parameters, returns.
- Arrays and objects basics.

Week 9 – DOM Manipulation

- **Topics:**

- The DOM tree: nodes, elements.
- Selecting elements: `getElementById`, `querySelector`.
- Changing text, styles, attributes.
- Adding/removing elements dynamically.

- Event handling: `addEventListener`.

Week 10 – JavaScript Advanced Concepts

- **Topics:**

- ES6+ features: `let`, `const`, arrow functions, template literals.
- Objects & methods.
- Arrays: `map`, `filter`, `reduce`.
- JSON basics.
- Error handling: `try/catch`.

Week 11 – Working with APIs

- **Topics:**

- What is an API?
- Fetch API basics (GET requests).
- Consuming JSON data.
- Error handling and loading states.
- Displaying API data on a page.

Week 12 – Final Project & Deployment

- **Topics:**
 - Planning a final project (portfolio, mini-web app, blog site, etc.).
 - Project wireframes & design.
 - Integrating HTML, CSS, JS, and API.
 - Testing for responsiveness & accessibility.
 - Deployment: GitHub Pages, Netlify.

Assessments

- **Weekly quizzes**
- **Assignments/projects** every week.
- **Final project**