

Web Development Course

Syllabus

This web development course provides a comprehensive journey from foundational concepts to advanced skills in HTML, CSS, JavaScript, and PHP. It is designed to equip learners with the knowledge and practical experience needed to create dynamic and responsive websites. The course is structured into four main modules, each focusing on a core technology, and includes hands-on projects to reinforce the learned concepts.

HTML Overview

1. Fundamentals:

- a. What is HTML?
- b. Structure of HTML
- c. HTML Document Structure
- d. HTML Elements
- e. HTML Attributes
- f. Headings
- g. Paragraphs
- h. Lists
- i. Links
- j. Images
- k. Forms
- l. Tables
- m. Semantic HTML
- n. HTML Entities

2. Advanced:

- a. HTML5
- b. Audio and Video
- c. Canvas
- d. Geolocation
- e. Web Storage
- f. Web Forms 2.0
- g. Responsive Images

- h. Custom Data Attributes
- i. Inline SVG
- j. IFrames

3. Accessibility:

- a. Semantic HTML for Accessibility
- b. ARIA Roles and Attributes

4. Frameworks:

- a. Introduction to Bootstrap HTML
- b. Introduction to Foundation HTML
- c. Introduction to Semantic UI HTML

CSS Overview

1. Fundamentals:

- a. What is CSS?
- b. Selectors
- c. Color
- d. Background Color
- e. Font
- f. Icons
- g. Margin
- h. Padding
- i. Border
- j. Links
- k. Z-index
- l. Positioning
- m. Pseudo-class
- n. Values and units
- o. Specificity
- p. !important
- q. Math functions

2. Advanced:

- a. Shadow
- b. Gradients
- c. Transformation
- d. Variables
- e. Transitions
- f. Animations

- g. Flexbox
- h. Grid
- i. Masking
- j. User interface

3. Frameworks:

- a. Introduction to Tailwind CSS
- b. Introduction to Bootstrap CSS
- c. Introduction to Materialize CSS

JavaScript Overview

1) Fundamentals:

- a. What is JavaScript?
- b. Variables
- c. Data Types
- d. Operators
- e. Control Flow
- f. Functions
- g. Arrays
- h. Objects
- i. DOM Manipulation
- j. Events

2) Advanced:

- a. Closures
- b. Promises
- c. Async/Await
- d. ES6 Features
- e. Classes
- f. Modules
- g. JSON
- h. Error Handling
- i. Web APIs

3) Browser Interaction:

- a. Local Storage and Session Storage
- b. Cookies
- c. AJAX

4) Frameworks and Libraries:

- a. Introduction to React
- b. Introduction to Angular
- c. Introduction to Vue.js
- d. Introduction to Node.js

- e. Introduction to Express.js
- f. Introduction to jQuery

PHP Overview

1) Fundamentals:

- a. What is PHP?
- b. Syntax and Structure
- c. Variables
- d. Data Types
- e. Operators
- f. Control Structures
- g. Functions
- h. Arrays
- i. Strings
- j. Forms and Super Global Variables

2) Advanced:

- a. Include and Require
- b. Sessions and Cookies
- c. File Handling
- d. Database Connectivity (MySQL)
- e. Error Handling
- f. Object-Oriented Programming (OOP)
- g. Regular Expressions

3) Web Development:

- a. Server-Side Validation
- b. Sending Email
- c. Session Management

4) Frameworks:

- a. Introduction to Laravel
- b. Introduction to Symfony
- c. Introduction to CodeIgniter

Projects

1) Personal Portfolio Website:

Create a personal portfolio website showcasing your skills, projects, and resume.

2) Chat Application:

Build a real-time chat application using JavaScript and a backend service. Users can join chat rooms, send messages, and see updates in real-time.

3) Random Quote Generator:

Design a web page that displays random quotes fetched from an API or a predefined list.

4) Content Management System (CMS):

Create a CMS where users can create, edit, and delete articles or blog posts. Include user authentication and permissions.