

Module 1: Website Development Basics (HTML, CSS, JavaScript)

Prerequisite

- Minimum Intermediate education with Mathematics, Physics, Computer Science, or Chemistry.
- Personal Computer with average specifications.
- Basic proficiency in reading, writing, and understanding the English language.

Course Description

This module introduces the foundational technologies of web development. You'll learn to design responsive, interactive websites and understand how different components of the web interact with browsers and devices.

Learning Outcomes

- Understand web page structure and coding with HTML and CSS.
- Create responsive, interactive web pages.
- Learn JavaScript to manipulate the DOM and build dynamic content.
- Implement a web application with server-side data integration using Ajax.

Course Outline

Week 1: Introduction to Web Development and HTML

- Overview of the web development process.
- Basics of HTML: structure, elements, and tags.
- Hands-on: Creating a simple HTML webpage.

Week 2: More HTML Elements and Version Control

- Introduction to semantic HTML and additional elements.
- Basic version control with Git and GitHub.

Week 3: CSS Fundamentals

- CSS basics: selectors, properties, and the box model.
- Introduction to inline, internal, and external CSS.

Week 4: CSS Layout and Advanced Styling

- Layout design with Flexbox or Grid.
- Colors, backgrounds, and font styling.

Week 5: Responsive Web Design

- Media queries and viewport settings for mobile-first design.

Week 6: Introduction to CSS Frameworks (e.g., Bootstrap)

- Building layouts using CSS frameworks.

Week 7: Introduction to JavaScript

- JavaScript fundamentals: variables, functions, loops, and conditionals.

Week 8: JavaScript and DOM Manipulation

- DOM manipulation and handling user events.

Week 9: Advanced JavaScript Concepts

- Functions, ES6+ features, and error handling.

Week 10: Introduction to AJAX and Fetch API

- Fetching data from a server using AJAX and Fetch API.

Week 11: Project Development

- Combining HTML, CSS, and JavaScript skills in a web project.

Week 12: Finalization and Assessment

- Presenting projects and providing feedback.

Grading Criteria

- Quizzes: 20%
- Class Participation: 15%
- Projects: 25%
- Final Projects: 40%