

JAVASCRIPT SYLLABUS

Week 1: Introduction to JavaScript

- What is JavaScript?
- Role of JavaScript in web development
- Setting up the development environment (text editor, browser)
- Basic syntax and structure of JavaScript code
- Variables and their usage
- Different data types in JavaScript
- Type conversion and coercion

Week 2: Operators, Comparisons, and Conditionals

- Understanding operators in JavaScript
- Working with arithmetic and assignment operators
- Comparison operators and their usage
- Conditional statements (if, else if, else)
- Logical operators (&&, ||, !)
- Dialog boxes for user interaction

Week 3: Loops and Functions

- Introduction to loops (for, while, do-while)
- Using loops for repetitive tasks
- Function basics and its role
- Function declaration vs. expression
- Passing parameters to functions
- Returning values from functions

Week 4: Arrays and Objects

- Creating and manipulating arrays
- Array methods (push, pop, shift, unshift, forEach, map, filter)
- Introduction to objects and their purpose
- Accessing object properties
- Understanding "this" keyword in objects
- Object methods and their usage

- Working with JSON methods

Week 5: DOM Manipulation and Event Handling

- Introduction to the Document Object Model (DOM)
- Understanding the DOM tree structure
- Selecting and manipulating DOM elements
- Modifying content and attributes of DOM elements
- Adding and removing elements from the DOM
- Managing styles and classes through JavaScript
- Handling events and event listeners

Week 6: Asynchronous Programming and Advanced Concepts

- Introduction to asynchronous programming
- Working with the Fetch API for data retrieval
- Using callbacks for asynchronous operations
- Introducing Promises for structured async code
- Utilizing async/await syntax for better readability
- Exploring API concepts
- Review and wrap-up of class content