

## COURSE OUTLINE FOR INTRODUCTION TO JAVASCRIPT

### Week 1: - Basics of JavaScript

Objective: Introduce students to the fundamentals of JavaScript, including syntax, data types, and basic operations.

#### 1. Introduction to JavaScript

- What is JavaScript?
- JavaScript's role in web development
- Setting up the development environment (browser, text editor)

#### 2. Basic Syntax

- Variables and constants (var, let, const)
- Data types (strings, numbers, booleans, arrays, objects)
- Comments and code structure

#### 3. Operators and Expressions

- Arithmetic operators
- Assignment operators
- Comparison operators
- Logical operators

#### 4. Control Flow

- if, else if, else statements
- switch statements
- Ternary operator

### Week 2: - Interacting with the DOM and Events

Objective: Teach students how to interact with the Document Object Model (DOM) and handle user events.

#### 1. Introduction to Objects and Arrays

- Understanding objects and their properties
- Creating and manipulating arrays
- Methods and properties of arrays (push, pop, map, etc.)

#### 2. Introduction to Loops

- for, while, do...while loops
- Iterating over arrays and objects

#### 3. Introduction to Functions

- Defining functions
- Function parameters and return values
- Function expressions and arrow functions

#### 4. Understanding the DOM

- What is the DOM?
- Selecting elements (getElementById, querySelector, etc.)
- Modifying DOM elements (text, attributes, styles)

#### 5. Event Handling

- What are events?
- Adding event listeners (click, mouseover, keydown, etc.)
- Event object and event propagation

### Week 3: - Advanced JavaScript Concepts and Mini-Project

Objective: Introduce advanced JavaScript concepts and wrap up with a mini-project that ties everything together.

#### 1. Introduction to Objects and Arrays

- Understanding objects and their properties
- Creating and manipulating arrays
- Methods and properties of arrays (push, pop, map, etc.)

#### 2. Introduction to ES6 Features

- Template literals
- Destructuring assignments
- Default parameters

#### 3. Q&A and Wrap-Up

- Addressing student questions
- Discussing best practices in JavaScript
- Resources for further learning