

JavaScript Complete Course Outline (30 Lectures × 45 min)

Basics & Fundamentals (Lectures 1-6)

- Lecture 1: Introduction to JavaScript, Setup, Environment
- Lecture 2: Variables, Data Types, Operators
- Lecture 3: Control Structures – Conditionals and Loops
- Lecture 4: Functions – Declaration, Expression, Arrow Functions
- Lecture 5: Scope, Hoisting, Closures
- Lecture 6: Error Handling and Debugging

Advanced JavaScript Concepts (Lectures 7-12)

- Lecture 7: Objects and Prototypes, Prototype Chain
- Lecture 8: ES6+ Features – let/const, Template Literals, Destructuring
- Lecture 9: Classes and Object-Oriented Programming in JavaScript
- Lecture 10: Modules and Import/Export
- Lecture 11: Iterators and Generators
- Lecture 12: Asynchronous JavaScript – Callbacks, Promises, Async/Await

DOM Manipulation & Events (Lectures 13-16)

- Lecture 13: DOM Traversal and Manipulation
- Lecture 14: Event Handling – Event Bubbling and Capturing
- Lecture 15: Forms and Input Validation
- Lecture 16: Browser Storage – LocalStorage, SessionStorage, Cookies

JavaScript in Web APIs & Advanced Topics (Lectures 17-22)

- Lecture 17: Fetch API, AJAX, and RESTful Services
- Lecture 18: Web Workers and Background Processing
- Lecture 19: Service Workers and Progressive Web Apps (PWA)
- Lecture 20: Security Best Practices in JavaScript
- Lecture 21: Design Patterns in JavaScript
- Lecture 22: Testing JavaScript Code (Jest, Mocha)

Modern JavaScript Tooling & Frameworks

Introduction (Lectures 23-26)

- Lecture 23: Package Managers (npm, yarn), Bundlers (Webpack, Rollup)
- Lecture 24: Introduction to TypeScript and Benefits
- Lecture 25: Introduction to Frontend Frameworks: React, Vue, Angular Overview
- Lecture 26: State Management Basics (Redux, Vuex basics)

JavaScript Latest Features & Future Trends (Lectures 27-30)

- Lecture 27: ECMAScript 2025 New Features Overview (e.g., RegExp escape, Promise.try)
- Lecture 28: JavaScript and WebAssembly Integration
- Lecture 29: Server-side JavaScript with Node.js Basics
- Lecture 30: Building Full-stack JavaScript Applications – Overview and Next Steps