

# JavaScript

This JavaScript Coding Course will teach you everything you need to master the most widely used front-end language today .

“Any application that can be written in JavaScript will eventually be written in JavaScript.”

–Atwood’s Law, by Jeff Atwood

## Prerequisites

You should not be a complete beginner for this course. If you cannot [pass this test](#), you must do [Intro To Programming](#) first.

## Intended Audience:

Anybody who wants to understand and remember how to program with JavaScript using the best techniques and the most recent standards, including OO.

## Further Training:

[HTML5 / JavaScript](#) ,

[Angular](#)

[NodeJS](#) .

## Course Material

Provided

## Course Info

### Part I. Core JavaScript

#### Lexical Structure

- Character Set
- Comments
- Literals

- Identifiers and Reserved Words
- Optional Semicolons

## **Types, Values, and Variables**

- Numbers
- Text
- Boolean Values
- null and undefined
- The Global Object
- Wrapper Objects
- Immutable Primitive Values and Mutable Object References
- Type Conversions
- Variable Declaration
- Variable Scope

## **Expressions and Operators**

- Primary Expressions
- Object and Array Initializers
- Function Definition Expressions
- Property Access Expressions
- Invocation Expressions
- Object Creation Expressions
- Operator Overview
- Arithmetic Expressions
- Relational Expressions
- Logical Expressions
- Assignment Expressions
- Evaluation Expressions
- Miscellaneous Operators

## **Statements**

- Expression Statements
- Compound and Empty Statements
- Declaration Statements
- Conditionals
- Loops

- Jumps
- Miscellaneous Statements
- Summary of JavaScript Statements

## **Objects**

- Creating Objects
- Querying and Setting Properties
- Deleting Properties
- Testing Properties
- Enumerating Properties
- Property Getters and Setters
- Property Attributes
- Object Attributes
- Serializing Objects
- Object Methods

## **Arrays**

- Creating Arrays
- Reading and Writing Array Elements
- Sparse Arrays
- Array Length
- Adding and Deleting Array Elements
- Iterating Arrays
- Multidimensional Arrays
- Array Methods
- ECMAScript 5 Array Methods
- Array Type
- Array-Like Objects
- Strings As Arrays

## **Functions**

- Defining Functions
- Invoking Functions
- Function Arguments and Parameters
- Functions As Values
- Functions As Namespaces

- Closures
- Function Properties, Methods, and Constructor
- Functional Programming

## **Classes and Modules**

- Classes and Prototypes
- Classes and Constructors
- Java-Style Classes in JavaScript
- Augmenting Classes
- Classes and Types
- Object-Oriented Techniques in JavaScript
- Subclasses
- Classes in ECMAScript 5
- Modules

## **Pattern Matching with Regular Expressions**

- Defining Regular Expressions
- String Methods for Pattern Matching
- The RegExp Object

## **JavaScript Subsets and Extensions**

- JavaScript Subsets
- Constants and Scoped Variables
- Destructuring Assignment
- Iteration
- Shorthand Functions
- Multiple Catch Clauses
- E4X: ECMAScript for XML

## **Server-Side JavaScript**

- Scripting Java with Rhino
- Asynchronous I/O with Node

## **Part II. Client-Side JavaScript**

### **JavaScript in Web Browsers**

- Client-Side JavaScript
- Embedding JavaScript in HTML
- Execution of JavaScript Programs
- Compatibility and Interoperability
- Accessibility
- Security
- Client-Side Frameworks

## **The Window Object**

- Timers
- Browser Location and Navigation
- Browsing History
- Browser and Screen Information
- Dialog Boxes
- Error Handling
- Document Elements As Window Properties
- Multiple Windows and Frames

## **Scripting Documents**

- Overview of the DOM
- Selecting Document Elements
- Document Structure and Traversal
- Attributes
- Element Content
- Creating, Inserting, and Deleting Nodes
- Example: Generating a Table of Contents
- Document and Element Geometry and Scrolling
- HTML Forms
- Other Document Features

## **Scripting CSS**

- Overview of CSS
- Important CSS Properties
- Scripting Inline Styles
- Querying Computed Styles
- Scripting CSS Classes

- Scripting Stylesheets

## **17. Handling Events**

- Types of Events
- Registering Event Handlers
- Event Handler Invocation
- Document Load Events
- Mouse Events
- Mousewheel Events
- Drag and Drop Events
- Text Events
- Keyboard Events

## **Scripted HTTP**

- Using XMLHttpRequest
- HTTP by <script>: JSONP
- Comet with Server-Sent Events

## **The jQuery Library**

- jQuery Basics
- jQuery Getters and Setters
- Altering Document Structure
- Handling Events with jQuery
- Animated Effects
- Ajax with jQuery
- Utility Functions
- jQuery Selectors and Selection Methods
- Extending jQuery with Plug-ins
- The jQuery UI Library

## **Client-Side Storage**

- localStorage and sessionStorage
- Cookies
- IE userData Persistence
- Application Storage and Offline Webapps

## **Scripted Media and Graphics**

- Scripting Images
- Scripting Audio and Video
- SVG: Scalable Vector Graphics
- Graphics in a <canvas>

## **HTML5 APIs**

- Geolocation
- History Management
- Cross-Origin Messaging
- Web Workers
- Typed Arrays and ArrayBuffers
- Blobs
- The Filesystem API
- Client-Side Databases
- Web Sockets

## **Duration and pricing**

[Pricing Group A](#)

## **Certificate**

Read about our [certificates](#)

## **Bookings**

You can download the course registration form on our home page or by clicking [here](#)

## **Brochure**

You may download a pdf copy of this page by clicking on the pdf icon at the top of the page.

## **Questions**

Please [email us](#)

## **Schedule**

On the calendar below. If your browser doesn't display the calendar below, please click on [this link](#) or try using [Google Chrome](#), alternatively please enquire via our [Contact Us](#) page.