

# Introduction to JavaScript

GoSkills online course syllabus

Thursday, November 21, 2024

**Skill level**

Beginner

**Lessons**

40

**Accredited by**

CPD

**Pre-requisites**

None

**Video duration**

2h 41m

**Estimated study time**

20h for all materials

**Instructor**

John Elder

## Course Introduction

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- 1** **Setting Up a Development Environment**  
Set up the tools you need to use JavaScript.
- 2** **Where to Use JavaScript**  
Where does JavaScript go? Putting JavaScript tags in the HTML head, vs body, vs external files.
- 3** **Syntax**  
What does JavaScript code look like?
- 4** **Output**  
Learn several ways to output data to the screen with JavaScript.

## Basic JavaScript

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- 5** **Statements and Comments**  
Understanding the instructions that are executed by the web browser, and learning how to comment code.
- 6** **Variables**  
How to store data in variables in JavaScript.
- 7** **Assignment Operators**  
How to assign values to a variable, and do basic math assignment.

- 8 **Arithmetic Operators**  
How to add, subtract, multiply, and divide with JavaScript. We'll also look at the modulus, incrementing and decrementing.
- 9 **Comparison and Logic Operators**  
How to compare two or more variables and test with logic (and, or, not).
- 10 **Strings, Numbers, and Boolean Data Types**  
Understanding the difference between strings and numbers; and understanding Boolean data types.
- 11 **Arrays**  
What are arrays, and how does JavaScript use them?

## Intermediate JavaScript

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- 12 **Objects**  
What are objects, and how does JavaScript use them?
- 13 **Functions**  
Implementing and invoking blocks of code with functions.
- 14 **If and If/Else and If/Else If Statements**  
Understanding conditional statements using If, If Else, and If Else If statements.
- 15 **Switch**  
Understanding conditional statements using switch.
- 16 **For Loops**  
Looping through things using For loops.
- 17 **While Loops**  
Looping through things using While loops.
- 18 **Intro to JSON**  
Introduction to JSON and why it is important.

## Using JavaScript For The Web

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- ## 19 A Short HTML/CSS Primer

JavaScript works with HTML and CSS, let's do a quick refresher video on HTML and CSS.
- ## 20 Intro to the HTML DOM

What is the DOM and why is it important?
- ## 21 DOM Methods and Properties

What are the actions you can perform on HTML elements and what properties can you get and set?
- ## 22 Dom Document Objects

Finding, changing, adding, and deleting elements.
- ## 23 Finding Dom Elements

Finding elements by ID, by tag name, by class name, by CSS selectors, and by collections.
- ## 24 Changing HTML Output, Content, and Attributes

How to change HTML output, content, and attributes with JavaScript.
- ## 25 Changing CSS

How to change your CSS with JavaScript.
- ## 26 Understanding Events

What is an event, and what can you do with it?
- ## 27 Event Listeners

What are event listeners, and how to listen for event handlers.
- ## 28 Navigating DOM Nodes

What is a DOM node and how do you navigate them.
- ## 29 Creating New Nodes

Adding new nodes on the fly with JavaScript.
- ## 30 The Node List

How to retrieve an array-like collection of nodes.
- ## 31 Form Validating

How to validate an HTML fill-out form with JavaScript.

**32** Introduction to jQuery  
What is jQuery, and why is it important?

## AJAX

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**33** What Is AJAX  
What is AJAX and what is it used for?

**34** AJAX Requests - GET or POST?  
What's the difference between GET and POST and when should you use them?

**35** AJAX Response  
How to handle an AJAX response.

## Building a Math Flashcard App

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**36** Putting It All Together - What We'll Build  
Introduction to building a simple math flashcard app with JavaScript and Ajax.

**37** Create the Fill-Out Form  
Let's create a fill-out form to enter our answers.

**38** Checking for Numbers  
Let's make sure the user entered a number!

**39** Output the Result  
How to output the answers to the screen.

**40** Finishing Up  
Create pages for Subtraction, Multiplication, and Division and finish the app.

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