

# HTML5 JavaScript Programming

## HTML5 Javascript Programming Training Course

### Prerequisites

You should know [HTML](#) and be on the [Intro To Programming](#) level

### Intended Audience

Web Developers who needs to master the latest technology for using HTML5 Programming and JavaScript

### After this course you should be able to

- Learn how to make your pages truly interactive by using the power of the DOM.
- Finally understand how JavaScript works and take yourself from novice to well-informed.
- Learn how JavaScript APIs fit into the HTML5 ecosystem, and how to use any API in your web pages.
- Use the Geolocation API to know where your users are.
- Bring out your inner artist with Canvas, HTML5's new 2D drawing surface.
- Go beyond just plugging a video into your pages, and create custom video experiences.
- Learn the secret to grabbing five megabytes of storage in every user's browser.
- Improve your page's responsiveness and performance with Web workers.
- And much more...

### Further Training

How about the [JavaScript Bootcamp](#) ?

### Course Material

Provided electronically

## Course Contents

### Day 1

- Getting to Know HTML5
- Writing Serious JavaScript
- Writing Serious JavaScript Revisited...
- Introducing JavaScript and the DOM: A Little Code
  - The Way JavaScript Works
    - Declaring a variable
  - How to name your variables
    - Getting Expressive
  - Doing things over and over...
  - Make decisions with JavaScript
  - Making more decisions... and, adding a catchall
  - How JavaScript interacts with your page
  - How to bake your very own DOM
  - You can't mess with the DOM until the page has fully loaded
    - The Phrase-0-Matic

### Day 3

- How the Geolocation API determines your location
- Writing the code to find the distance
  - Displaying the Map
  - Sticking a Pin in it...
    - Accuracy Test
  - Getting the app started
  - How to specify options
- Integrating our new function
- Talking to The Web: Extroverted Apps
  - Mighty Gumball wants a Web app
    - Move over XML, meet JSON
  - Displaying the gumball sales data
  - How to set up your own Web Server
  - Reworking our code to make use of JSON
    - Moving to the Live Server
    - What Browser Security Policy?
      - Meet JSONP
  - Let's update the Mighty Gumball web app
- Step 1: Taking care of the script element...
- Step 2: Now it's time for the timer
- Step 3: Reimplementing JSONP
- How to remove duplicate sales reports
- Updating the JSON URL to include the lastreporttime

### Day 5

- Storing Things Locally: Web Storage
- How browser storage works (1995 – 2010)
  - How HTML5 Web Storage works
- Were Local Storage and the Array separated at birth?
- Getting serious about stickies
  - Creating the interface
  - Now let's add the JavaScript
- Reworking our app to use an array
- Converting createSticky to use an array
  - Deleting sticky notes
  - The deleteSticky function
  - How do you select a sticky to delete?
- How to get the sticky to delete from the event
- Delete the sticky from the DOM, too
- Update the user interface so we can specify a color
- JSON.stringify, it's not just for Arrays
  - Using the new stickyObj
- Putting JavaScript to Work: Web Workers
  - The Dreaded Slow Script
- Adding another thread of control to help
  - How Web Workers work
  - Writing Manager.js
  - Now let's write the worker
    - Virtual Land Grab
- How to compute a Mandelbrot Set
  - How to use multiple workers
- Let's build the Fractal Explorer app
- Fitting the canvas to the browser window

### Day 2

- Events, Handlers and All that Jazz: A Little Interaction
- Get ready for Webville Tunes
- But nothing happens when I click "Add Song"
  - Handling Events
- Giving the button a click handler
  - Getting the song name
- How do we add a song to the page?
  - How to create a new element
  - Adding an element to the DOM
  - How to add the Ready Bake Code...
- Integrating your Ready Bake Code
- JavaScript Functions and Objects: Serious JavaScript
  - Expanding your vocabulary
  - How to add your own functions
  - Local and Global Variables
  - The short lives of variables
- What you can do with functions as values
  - Thinking about properties...
  - How to create an object in JavaScript
- Let's talk about passing objects to functions
  - Testing at the drive-in
- Objects can have behavior too...
  - Adding the "this" keyword
  - How to create a constructor
  - A closer look at window.onload
  - Another look at the document object
    - A closer look at document.getElementById
    - Element objects

### Day 4

- How to get a canvas into your web page
  - Drawing on the Canvas
- TweetShirt: the Big Picture
  - Now, let's add the <form>
- Time to get computational, with JavaScript
  - Writing the drawSquare function
    - Add the call to fillBackgroundColor
    - Drawing with Geeks
  - Breaking down the arc method
- Writing the drawCircle function...
- Completing the drawText function
  - Closely inspecting the video attributes...
- What you need to know about video formats
  - I was told there would be APIs?
  - How to write the "end of video" handler
- How the canPlayType method works
  - The setEffect and setVideo handlers
- And here are the helper functions
- Implementing the video controls
  - Switching test videos
  - It's time for special effects
    - The FX plan
- Time to get those effects buttons working
  - How video processing works
- Implementing a scratch buffer with Canvas
  - How to position the video and canvases
- Writing the code to process the video
  - How to process the buffer
- Now we need to write some effects
  - How to use error events

### Extras:

Responsive Web Design with CSS3

## **Duration and pricing**

- [Price Group A](#)

## **Certificate**

1. Upon completion of this course we will issue you with attendance certificate to certify your attendance and / or completion of the prescribed minimum examples.
2. You have the option to get the competency / academic certificate if you :  
hand in a project (pre-approved) covering most of the topics in the book.

## **Schedule**

On the calendar on this page 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.

## **Bookings**

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

## **Brochure**

To download a brochure of this page in pdf format, please click on the pdf icon at the top of this page.

## **Questions**

Please [email us](#)