Accelerated JavaScript
Syllabus for Summer 2017
https://iotopia-solutions.com/training/AcceleratedJavaScript

Course Objectives

This course will get you productive with JavaScript in just three days. You'll learn not just the basic syntax and the typical JavaScript way of doing things, but also the basics of client-side scripting in browsers and server-side scripting with Node.js. After this course you'll be well-equipped to handle typical client-side JavaScript tasks and small scale server-side tasks.

Course Content

JavaScript is one of the most in-demand languages today (#1 on GitHub and #5 on Google Trends[1]) and it's arguably the most ubiquitous language in history. This course covers not just its syntax and both client- and server-side usage but touches on the universe of JavaScript frameworks and build systems as well. Besides serving as a solid foundation for more advanced JavaScript programming, the material in this course is by itself sufficient to enable you to take on many JavaScript programming projects immediately.

Student Background

Before attending this course you should have some familiarity with some other programming language. This course will be focusing on how to do typical programming things in JavaScript, not on the typical programming things themselves.

Computer Requirements

Modern JavaScript can be run on most hardware in use today. For the purposes of this class we'd recommend you use a reasonably new laptop running something like Mac OS X (10.6+), Microsoft Windows 7+, or any recent version of Linux.

Suggested Reading

JavaScript has an excellent reference available online by the Mozilla Developer Network at: https://developer.mozilla.org/en-US/docs/Web/JavaScript
If you like the feel of a book in your hand, *JavaScript: The Good Parts* by Douglas Crockford and *JavaScript Enlightenment* by Cody Lindley followed by the *You Don't Know JS* series by Kyle Simpson or *JavaScript: The Definitive Guide* by David Flanagan are good choices.

[1] As of this writing.

Class Schedule

This class will run for three eight-hour days. Each day will be broken up with a break in the morning, afternoon, and at lunch time. Work periods will consist of a lecture on a topic followed by exercises to reinforce it.

Day 1: The Basics

Variables: types, booleans, numbers, strings, lists, dictionaries, tuples, sets, and scope. Conditionals. Loops. Collections. Exceptions. Functions. Closures. Objects. Logging.

Day 2: Objects & Files Plus Library Introduction

Standard built-in objects. Math. Dates and Times. Regular expressions. The basics of the DOM. Brief discussion of frameworks.

Day 3: More of the Library Plus External Tools

Node library. File input and output. NPM. Brief discussion of build systems.