Web Development Bootcamp Curriculum

The first 7 weeks will cover what you need to know for basic web development. You will learn how to build accessible, responsive websites in HTML and CSS, as well as DOM manipulation and basic programming in JavaScript. Finally, you will learn how to interact with APIs.

The next weeks will cover coding principles, essential tools, and popular frameworks to take you to the next level of frontend Javascript development. At the end of the course a week is dedicated to answering any questions you have (and some you don't) on how to get your first job in the tech industry, along with practical preparation for taking tech tests.

Throughout the course there will be take-home tasks and exercise days, and two weeks dedicated to project builds.

Week 1: Static HTML

- Wireframing
- Building a page in HTML and semantic HTML
- Styling and positioning elements with CSS

Week 2: Programming fundamentals with Javascript

- The script tag, the console and console.log.
- Data types (string, number, boolean, array, object)
- Variables (var/let/const)
- Loops
- Conditionals
- Functions
- Pseudo-coding
- Utility functions in javascript (prototype functions)

Week 3: Responsive design and Git

- Media queries
- CSS Grid
- Flexbox
- Git and Github

Week 4: Dom manipulation, validation and event handlers

- Introduction to the Document Object Model (DOM)
- DOM manipulation
- Event handlers
- Validating forms

Week 5: CSS Tooling

- Animations
- Using CSS libraries
- normalise
- minification
- CSS Pre-processors

Week 6: Portfolio build

Build a responsive portfolio site for your projects on github.

During this module there will be time for 1:1s, pair-working, and meeting guest developers.

Week 7: How to use APIs

- Explaining HTTP and how the Internet works
- What is a "stack"?
- What is an API?
- How to call APIs using `fetch`
- Working with JSON

Week 8: Broswer APIs, NPM, and Intro to Single Page Apps

- Browser APIs (e.g. geolocation, fullscreen)
- Async/await and promises
- NPM
- What are SPAs? What is JAMstack?
- Introduction to React (theory)

Week 9: React: Functional components and basic hooks

- `create-react-app`
- Functional components
- props, children
- Basic hooks: useState, useEffect
- Context API (stretch goal)

Week 10: React: Routing, useReducer, and legacy React

- Routing
- Advanced hooks: useReducer
- Overview of class components and component lifecycle (theory)
- Component libraries
- TBC (Project planning, or intro to Agile, depending on time constraints)

Week 11: Project week

Build team projects using all the skills covered in the course so far.

During this module there will be time for 1:1s, pair-working, and meeting guest developers.

Week 12: Preparing for the tech industry

- Project and portfolio showcase
- Preparing for technical tests

We will also cover mixed content about the tech industry such as:

- tech culture and events
- how to transition from frontend or web development to other kinds of development
- what are programming paradigms, and when will you need to know one?

Curriculum content is subject to change.