

# FOUNDATIONS OF WEB DEVELOPMENT SYLLABUS

## Course Description

Foundations of Web Development is a 128-hour course where students learn the basic concepts of responsive web development. Students are taught the value of design, how to extract details from an Adobe Photoshop design file, and some core concepts of UI (User Interface), UX (User Experience), and UCD (User-Centered Design).

For the final project, students will build a modern, single-page web application that utilizes industry best practices. By the end of this course, you will learn:

- How to work with JavaScript, jQuery, the browser, and the DOM
- The fundamentals of JavaScript, such that you can more easily learn how to work with JavaScript frameworks and libraries
- How to build a modern, single-page website using common design patterns

## Ideal Students

**Graphic Designers:** This course provides creatives the skills to translate their designs and ideas into a working prototype and build a beautifully designed website.

**Career Transitioners:** Have you been looking to break into the field of web development and need to learn the skills necessary to build websites from scratch and program for the web? This course is for you!

**Novices/Newbies:** The Foundations of Web Development course gives students with no prior coding experience the skills needed to design and build your first website using HTML/CSS and JavaScript.

## Course Prerequisites

- No prior coding experience required
- A Mac or PC laptop that is 3 years old or newer. For details on storage and RAM requirements, see the FAQ section at the end of this syllabus.

## UNITS

Outlined below are the units for this course. Keep in mind that we do not expect you to come to the course knowing the different terms, languages, and technical words that are included in the units. We'll teach you it all with hands-on instruction!

### UNIT 1 **Course Overview, Design Overview**

- Course overview and intro to HTML, CSS, JavaScript
- Overview of tools, architecture, Q&A, simple code practice
- Overview of user experience, user interface, user-centered design, color theory, and typography

## UNIT 2 **Design and Usability, Exporting Assets**

- Overview of sketching, wireframing, prototyping, and practice
- Overview of working with design files, exporting assets, and practice
- Overview of usability, more practice exporting design assets

## UNIT 3 **Intro to Web Development, HTML, and CSS**

- Intro to development and HTML
- HTML continued, intro to CSS
- CSS continued

## UNIT 4 **CSS Part I**

- CSS layout
- Structuring with HTML and CSS
- Structuring continued
- CSS layout practice

## UNIT 5 **Responsive CSS and CSS Tools**

- Intro to responsive CSS and media queries
- Overview of CSS and HTML tools, intro to Bootstrap, Bootstrap practice
- Intro to Flexbox, Flexbox practice
- CSS3 Animations

## UNIT 6 **JavaScript**

- Intro to programming and JavaScript
- Basic usage, syntax, flow
- Document object model, events, data types
- Arrays, variables, scope, functions
- Objects, object-oriented programming, local storage, prototype
- Operators, comparisons, input/output
- Conditionals, loops
- Build a simple to-do application with pure JavaScript

## UNIT 7 | **jQuery**

- Intro to jQuery: what, why, who, basic usage, syntax, structure
- Traversal, document ready, selectors, chaining, manipulation
- Convert to-do application to jQuery
- Element manipulations, events, Q&A
- Delegation, live events, effects, AJAX
- jQuery plugins, jQuery UI
- jQuery and JavaScript plugin practice: jQuery UI, jQuery Validate, ParallaxJS, PaceJS

## UNIT 8 | **HTML5 Canvas**

- HTML5 canvas overview and demos

## UNIT 9 | **Optimization and Enhancements**

- Compatibility, performance, accessibility, SEO, code optimization

## FAQS

Why should you enroll in this course?

Learning the foundations of HTML/CSS and JavaScript is an incredibly marketable and desired skill in today's workforce. Almost all companies have a digital aspect to them and are hiring technical employees more than ever before. Knowing how to code allows you to turn your ideas into beautiful and functional designs for the web.

What skills will I walk away with after this course?

In addition to building websites from scratch, you'll interact with multiple popular libraries and frameworks such as jQuery and Bootstrap. You'll learn how to stay ahead of an ever-changing career field in technology, speak about web technologies with other developers and designers, and make informed decisions about what technologies to use for your projects.

Who will I be sitting next to in this course?

You'll be in a classroom with students just like you: interested in tech, but no professional coding education or experience. This is a beginner-level course, and a wide range of student interests exists. Past AIM Code School Foundations of Web Development graduates have been designers, entry-level corporate employees, entrepreneurs, project managers, stay-at-home moms, and more!

Should I  
come  
equipped  
with  
anything?

Yes, a laptop. Windows laptops are preferred. Mac OS devices do not interact well with the hands-on coding exercises.

*System requirements: Laptop should be 3 years old or newer and have 2 GB of RAM (8GB recommended) as well as 3.2 GB available hard-disk space for installation; additional free space required during installation (cannot install on a volume that uses a case-sensitive file system or on removable flash storage devices).*

## NEXT STEPS

Are you ready to change your career path and learn an incredibly valued skill set? [Apply](#) today. There's no risk in applying! After your application has been received, you'll be sent an online, non-technical assessment to gauge your problem-solving skills.