



General Assembly
Course Curriculum

WEB DEVELOPMENT IMMERSIVE REMOTE



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OVERVIEW

THE FRAMEWORK

This 13-week course provides students with a breadth of web development skills, enabling them to build full stack web applications. Our course is built around the broader history of web development. This means that our students graduate with a solid base of fundamental programming knowledge, experience with specific languages and frameworks that are popular today, and a flexible outlook that is comfortable and eager to tackle new technologies in a fast-moving and ever-changing industry.

Because we're focused on preparing our students for a career in technology, we want each graduate to leave WDI Remote with a body of work they can use in their job search to discuss and demonstrate what they are capable of contributing to a company.

By the end of this course, students should be able to:

- › Design and lay out responsive web applications
- › Build secure full-stack web applications according to common design patterns
- › Safely model and store data in SQL and NoSQL databases
- › Develop web applications using both Ruby and JavaScript
- › Consume and integrate third-party APIs in an application
- › Use modern JavaScript browser application frameworks
- › Deploy applications to the web using cloud-based hosting
- › Clearly document and present the projects they've built



STUDENTS

CAREER CHANGERS

For individuals looking to transition into a technical career, this course provides a supportive community and a set of skills necessary to turn your designs into web applications that will serve as a pillar of your job search.

LEVEL-UPPERS

For individuals looking for a discrete set of technical skills to complement existing knowledge, this course provides a set of skills that can help to either expand an existing freelance business, or move into a more technical role at an existing company.

UNDECLARED MAJORS

For those who've recently graduated college, and are looking for an efficient pathway to a technical career, this course provides a set of skills that can serve as a foundation for a career in web development or other related technical disciplines at a lower cost than a master's program or traditional institution.

ENTREPRENEURS

For those looking to launch a company or take an existing company online, this course provides the skills needed to plan for, design, build, and launch an MVP of a web application.



PROJECTS

PRE-WORK PROJECT FUNDAMENTALS

During the approximately 40 hours of pre-work, you'll cover programming fundamentals and be asked to build a simple command-line game using JavaScript. This project will test your knowledge of key concepts, such as variables, objects, and functions. The objective of the project is to:

- › Prepare you to enter WDI with a rudimentary understanding of JavaScript as a programming language
- › Practice running code from the command line
- › Apply troubleshooting and debugging techniques

UNIT 1: BUILD A GAME IN THE BROWSER

At the end of Unit 1, spend a few days building a front-end game using technologies like HTML, CSS, JavaScript, and jQuery. The objective of the project is to:

- › Create an interactive game in the browser
- › Apply foundational programming skills to game logic
- › Document your project workflow to kickstart your portfolio

UNIT 2: YOUR FIRST FULL-STACK APP

For your mid-course project you'll spend 3-4 days building a secure, password-protected Node.js application that is able to create, read, update, and delete data from a MongoDB database. The objective of the project is to:

- › Build a full-stack MVC web application in JavaScript
- › Implement basic sign up/log in of users with passwords
- › Store application data in a MongoDB database
- › Deploy your application online so it's publicly accessible



PROJECTS

UNIT 3: ANGULAR.JS AND THE MEAN STACK (GROUP PROJECT)

At the end of Unit 3, you'll work with a group to build a full-stack MEAN stack application. The objective in this project is to:

- › Work in a simulated team project environment, managing team contributions through Github
- › Craft thoughtful user stories together, as a team
- › Implement CRUD functionality in a RESTful Node.js API
- › Store application data in a NoSQL database
- › Consume your API via AJAX in a front-end built with Angular.js
- › Layout and style your application with well-formatted CSS
- › Deploy your application online so it's publicly accessible

UNIT 4: RUBY ON RAILS

For the last unit, you'll spend 3-4 days building a secure, password-protected Ruby on Rails application that is able to create, read, update, and delete data from a SQL database. The objective of the project is to:

- › Build a full-stack MVC web application in Ruby
- › Implement basic sign up/log in of users with passwords
- › Store application data in a SQL database
- › Utilize an ORM to create a database table structure and interact with data stored in a relational database
- › Deploy your application online so it's publicly accessible



PROJECTS

UNIT 5: FINAL PROJECT

Your final project is likely the most important project in your portfolio. You will apply the things you've learned throughout the course, while exercising creativity in choosing the technologies and skills on which you want to focus. Most students will use a front-end JavaScript browser framework like Angular.js, and some will incorporate other tools and technologies that they've learned on their own. The scope is flexible, but in general, the objective is to:

- › Prioritize your user stories and build a usable product
- › Choose an appropriate technology stack for your needs
- › Apply skills you've learned in previous units
- › Build an interactive front-end with a JavaScript framework
- › Design a visually-impressive front-end to kick your portfolio up a notch
- › Deploy your application online so it's publicly accessible



UNITS

UNIT 1: FRONT-END DEVELOPMENT

- › How the Internet Works
- › Using the Terminal & Navigating the Filesystem
- › HTML5
- › Chrome Developer Tools
- › Text Editors
- › CSS Styling
- › CSS Box Model & Positioning
- › Web Typography
- › JavaScript Data Types, Objects, and Functions
- › JavaScript Control Flow
- › Debugging JavaScript
- › Advanced JavaScript OOP & Prototypal Inheritance
- › DOM Manipulation & Events
- › Git and Github
- › Asynchronous JavaScript Callbacks
- › jQuery
- › JavaScript Scope
- › Responsive Web Design
- › User Stories and Task Tracking



UNITS

UNIT 2: SERVER SIDE APPLICATIONS

- › Introduction to Node.js
- › RESTful Routing with Express.js
- › MVC Design Patterns
- › Debugging and Logging in Node
- › NoSQL with MongoDB and Mongoose
- › Express Views and EJS
- › Encrypted Passwords and Authentication
- › Token-based Authentication
- › Heroku Deployment



UNITS

UNIT 3: MEAN STACK/ANGULAR.JS

- › Introduction to Angular.js
- › Extending DOM Elements with Custom Behaviors
- › Client-side Models and Data Binding
- › Views With Templates and Includes
- › Connecting and Syncing with a REST API
- › Managing Authentication State
- › Team Workflow using Git and Github
- › Using AJAX to create Single Page Applications
- › Nesting Scope
- › Using Filters
- › Using Services
- › Writing Your Own Custom Directives
- › Listening for and Triggering Events
- › Setting Up Dependencies
- › Routing in Single Page Applications



UNITS

UNIT 4: RUBY ON RAILS

- › Ruby Data Types, Objects, and Methods
- › Ruby Control Flow
- › Ruby Collections
- › Classes and Inheritance
- › Introduction to SQL
- › Object-Relational Mapping in ActiveRecord
- › Building & Submitting Forms
- › Controllers and Routes
- › Layouts, Partials, & Views
- › Encrypted Passwords and Authentication



UNITS

OPTIONAL TOPICS

- › Computer Science Interview Fundamentals
- › CSS Pre-processors
- › Bootstrap
- › OAuth and Third-party APIs
- › Social Network / Third-party Application Login
- › Introduction to Testing with Mocha and Chai
- › Introduction to WebSockets
- › PHP
- › Wordpress



FAQS

WHAT HAPPENS WHEN I CLICK “APPLY NOW?”

After filling us in on some basic information, we'll connect you with someone who will discuss the program with you, and get to know a little more about you.

After our first conversation, you'll have some work to do. You'll need to complete our online learning program Dash to show a basic knowledge of HTML, CSS, and JavaScript. We'll also need you to explore available web developer positions in your area, and decide which ones you might be interested in.

In our second interview, we will review your work and your career options to make sure we can really help you reach your potential.

WHY ARE THESE SKILLS RELEVANT TODAY?

There's never been a better time to start a career as a web developer. From startups to Fortune 100 companies, there is a consistent demand for both developers who write high-quality code and experienced problem solvers who can design creative solutions.

WHAT PRACTICAL SKILL SETS CAN I EXPECT TO HAVE UPON COMPLETION OF THE COURSE?

By the end of the course, you will be able to:

- › Write HTML, CSS, and JavaScript that displays as intended in modern browsers
- › Develop a back-end web application and APIs using a modern programming language and MVC web development framework, such as Rails
- › Develop a dynamic front-end to your application using a modern framework used to create single-page apps, such as Angular or Backbone
- › Consume web APIs from third-party sites like Twitter or Yelp
- › Write secure applications and deploy them to cloud services like Heroku
- › Collaborate within a team using an agile development workflow and widely-accepted collaboration practices using Git



FAQS

WHAT WILL THE ONLINE CLASSROOM EXPERIENCE BE LIKE?

Given the fact that there are an infinite number of both real life and online distractions that may keep you from your work (cat videos, cats, etc.), we've developed a classroom experience that will keep you engaged at all times.

Our lessons are broken up into micro-lectures, which teach you content in short spurts so that you can immediately break out into groups and practice applying what you've learned.

We've modeled the course's activities so that you'll be able to have constant conversations with your fellow classmates, instructors, and TAs throughout the course. We also encourage students to have side conversations with each other, to better get to know their classmates and help build a sense of community.

WHO ELSE WILL BE IN MY CLASS?

Our students are engineers, artists, journalists, entrepreneurs, financial analysts, folks just out of college, your new best friends - individuals who are looking to start a new career in web development, and, most importantly, just as motivated and passionate as you are.

WHAT CAN I EXPECT TO ACCOMPLISH BY THE END OF THIS COURSE?

By the end of the course, you will have:

- › Completed several individual and group projects, including one primary portfolio project
- › Learned about web development from experienced web developers
- › Networked with some of the best developers, companies, and entrepreneurs in the tech community
- › Prepared yourself with the foundational knowledge you need to begin a career of continuous learning



FAQS

WHY SHOULD I TAKE THE FULL-TIME COURSE INSTEAD OF A COMBINATION OF PART-TIME COURSES?

Web Development Immersive is a more robust learning experience than our part time courses and is designed for people looking to start new careers or launch their own businesses.

Graduates of our Web Development Immersive will have a full-stack set of developer skills with a wider range of coding languages and will become part of an outcomes program that is not offered to our part-time students.

WHY WOULD I TAKE WEB DEVELOPMENT IMMERSIVE REMOTE INSTEAD OF AT A GA CAMPUS?

If you're living in or just outside of a GA metro and would have a long commute to campus, the Remote Immersive will allow you to invest more time and energy in your studies, while still pursuing Outcomes within the metro.

And if you're located outside one of our metro areas, WDI Remote will offer you the opportunity to work with our outcomes team to create a career plan and explore which employment options suit you best.

HOW DO I KNOW THAT I'M READY FOR THIS CLASS?

You do not have to be an experienced developer to be in this class. Candidates will be expected to show familiarity with HTML, CSS, and JavaScript during the Admission process, but we have tools in place that can help you get ready. We will also provide you with approximately 40 hours of pre work once you are admitted, to prepare you for the course.

WHAT WILL MY PERSONAL SETUP LOOK LIKE?

You will need to have your own computer (a Mac is strongly recommended) and an external monitor (ideally 28" or bigger).

You'll also need access to high speed internet (wired ethernet connection is strongly recommended) and a dedicated, quiet workspace where you feel comfortable working, preferably in a private room away from zany roommates, prying family members, Kramer-like friends popping in, etc.



FAQS

WHAT DOES SUCCESS IN THIS CLASS LOOK LIKE?

To get the most out of this course, you have to be willing to fully immerse yourself (get it?) in the classroom environment. This means actively engaging with your instructors, classmates, and career coach, as well as taking every opportunity to apply your new skills toward real-life projects.

We'll help guide you through the entire process, but in order to succeed you'll need to completely commit to your work and continuously push yourself.

WHY WOULD I TAKE WEB DEVELOPMENT IMMERSIVE REMOTE INSTEAD OF AT A GA CAMPUS?

If you're living in or just outside of a GA metro and would have a long commute to campus, the Remote Immersive will allow you to invest more time and energy in your studies, while still pursuing Outcomes within the metro.

And if you're located outside one of our metro areas, WDI Remote will offer you the opportunity to work with our outcomes team to create a career plan and explore which employment options suit you best.

WHAT DOES THIS COURSE COST?

\$13,500

DO I HAVE TO PAY THAT ALL AT ONCE?

No. You can pay in a lump sum or opt into our payment plan.

AM I ELIGIBLE FOR FINANCING IF I CURRENTLY LIVE OUTSIDE OF THE U.S.?

No. Unfortunately, we are only able to offer financing plans to students living with the U.S.



CONTACT

COURSE APPLICATION

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