DEVMOUNTAIN

Web Development

Immersive / Full-Time

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Overview

This course includes 12 weeks of instruction and one break week, making the total course 13-weeks long from start to finish. The course provides students with a toolbelt of web development skills. Students in this class will be able to build full-stack web applications. DevMountain's web development full-time course is built around the idea of learning how to learn. This means that our students graduate with a solid base of fundamental programming knowledge, but also with the know-how to continue to learn in the field. Through experience in specific languages and frameworks that are popular today, students are able to achieve a flexible outlook that is comfortable and eager to tackle new technologies in a fast-moving and ever-changing industry.

DevMountain's web development full-time class will focus on preparing students interested in:

- A career
- Entrepreneurship
- Obtaining a new skill set
- And more (read more on page 4)

We want each graduate to leave DevMountain's web development full-time course with a body of work they are proud of. Portfolio building is a large part of this class. Students can use their portfolio effectively in their job search, entrepreneurship career, or to discuss and demonstrate what they are capable of contributing to any team, group, organization, or company.

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

- Build secure full-stack web applications with modern and current technologies, best practices, structure, and languages
- Safely model and store data in MongoDB databases
- Design, layout, and build responsive websites and applications
- Deploy websites and applications to the web using cloud-based hosting
- Develop web applications using a JavaScript stack
- Use and integrate third-party APIs
- Develop with modern JavaScript browser application frameworks and libraries

Types of Students

This course is perfect for:

Career Driven Individuals

Do you want to transition to a career in tech? This course will provide career seekers with a set of skills that will serve as a support in your technical job search. This course also provides students with job search assistance, hiring/interviewing best practices, and employment lessons.

Entrepreneurs

Do you want to launch a company or build the ideas in your head? This class will prepare entrepreneurs with a skill set to design, build, and launch an MVP of a web application or take an existing idea online. Be your own tech co-founder

Skill Seekers

Do you know a little bit about technology and code and want to level up even more? Or, are you entering a tech industry career and want a complementary coding skill? This class will take you to the next level. This course will provide students with a technical skill set to supplement existing knowledge and prepare you for a technical world and any technical team.

Non-Traditional Students

Are you struggling with traditional education? Do you have time or the financial means for a 4-year degree? This class is perfect for those who want applicable, marketable skills and are interested in affordably obtaining them quickly.

Undeclared Students

Did you recently graduate from 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 bachelor's, master's or traditional degree.

Class Structure

DevMountain's Immersive Web Development course includes 6 weeks of pre-course materials and 12 weeks of learning, but run for a total of 13 weeks. This course is delivered in two segments: 7 weeks of learning and 4 weeks of projects. A break week which we call "interim week" divides the 12 weeks into two 6 week periods. The class structure is as follows:

Basecamp - 6 Weeks of Pre-Course Materials

DevMountain's pre-course materials, known as Basecamp, prepares students with a solid foundation in web development before the official course start date. Basecamp prepares students for their time in our immersive web development course. Basecamp runs 6 weeks and will introduce students to HTML, CSS, JavaScript and even basic React and Node technologies. Typically students take between 40-50 hours to complete Basecamp.

During students time in Basecamp they will have weekly access to mentors to get help with content or get advice for success during their time at DevMountain. There will also be twice-weekly live review/Q&A sessions to help reinforce the students learning. These review sessions will also be recorded for later viewing.

Immersive Course Curriculum - 12 Weeks of Course Materials

DevMountain's Immersive Web Development course is a scheduled 12-week guided model of learning held Mondays - Fridays from 9am - 5pm. Each cohort is assigned three mentors that are present during all course hours to help answer student questions. During the seven weeks of learning, the first hour of the day is run by the cohort mentors to guide students through review sessions, technology mini workshops and solving JavaScript toy problems. The next 2.5 hours are spent in the classroom being taught new material by an instructor. The remainder of the day is considered lab time where the students are given projects to help solidify the subject they learned during the lecture that day. Each lecture is assigned pre-class work that is expected to be completed by the students before they attend class the following day. This pre-class work helps to prepare students for the following day's material and sets the foundation for a better learning experience. It usually ranges between 1 - 2 hours of work.

During the four weeks of Projects, the students are given the opportunity to build projects using the technology that they have learned throughout the program. Mentors and Instructors are available to help students through these projects and answer any needed questions.

** Total Lecture Hrs / Total Lab Hrs / Total Externship Hrs / Total Hrs Combined - 96 / 289 / 0 / 420*

Curriculum

Basecamp - 6 Weeks of Pre-Course Materials

Week 1 of Basecamp

- Introduction
- Staying Motivated & Swallowing the Elephant
- Computation Thinking vs Syntax
- HTML & CSS Basics
- Variables & Data Types
- Operators

Week 2 of Basecamp

- Objects
- Arrays
- Functions
- Methods

Week 3 of Basecamp

- Conditionals
- Loops
- Combining Knowledge to Solve Complex Problems
- Practice Problems

Week 4 of Basecamp

- Computer Basics
- Node and NPM
- Intermediate HTML & CSS
- Scope

Week 5 of Basecamp

- Arrow Functions
- Callbacks
- Methods on Arrays
- Stretch Project

Week 6 of Basecamp

- Classes
- Import Statements
- Basic React

Immersive Course Curriculum - 12 Weeks of Course Materials

Week 1 of Course Materials

- Git I, JavaScript I
- JavaScript II
- JavaScript III
- HTML / CSS I
- React I

Week 2 of Course Materials

- React II
- React III
- Node I
- CSS II
- Project I

Week 3 of Course Materials

- Project I
- React IV
- SQL I
- Node II / Massive I
- SImulation I

Week 4 of Course Materials

- React V
- Node III
- SQL II
- JavaScript IV
- Simulation II

Week 5 of Course Materials

- CSS III
- JavaScript V
- Node IV
- Full Application Guided Build
- Simulation III

Week 6 of Course Materials

- Project 2 - Personal

Interim Week

Week 7 of Course Materials

- Project 2 - Personal

Week 8 of Course Materials

- Project 2 - Personal
- AngularJS I
- AngularJS II
- AngularJS III
- Simulation IV

Week 9 of Course Materials

- JavaScript VI
- Computer Science I
- Computer Science II
- Unit Testing I
- Unit Testing II

Week 10 of Course Materials

- Project III - Group

Week 11 of Course Materials

- Project III - Group

Week 12 of Course Materials

- Job Prep

Subject Descriptions

Mentor Reviews / Workshops

For the first hour of the day during lecture weeks, mentors hold review sessions for the previous day's curriculum along with mini workshops covering technology not formally taught at DevMountain. These topics range anywhere from data visualization to new CSS technology. A portion of the morning is also spent focusing on solving JavaScript toy problems.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 35 / 0 / 0 / 35*

Git I

This portion of curriculum introduces students to Git basics. They learn how to: 1) create a new Git repository, 2) connect their Git repository to a remote, 3) fork and clone Git repositories, 4) perform basic Git workflow in adding, committing, pushing, pulling, cloning, and checking status.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 3 / 1 / 0 / 4*

JavaScript I - VI

Students will learn the core principles and syntax of the Javascript language. They will: 1) understand and implement different data types, 2) understand and make use of comparison operators and ternary operators, 3) be able to create and use for loops, if, else, else if statements, and switch statements, 4) be able to use various built-in prototype methods including filter, map and reduce, 5) be able to explain how Javascript is scoped and the 'this' keyword, 6) be able to define and invoke functions, recognizing the difference between parameters and arguments, and understanding function declaration versus expression, 7) know how to use basic ES2015 syntax including but not limited to let, const, arrow functions, template literals, object destructuring, and spread operator, 8) recognize and create closures and prototypes, 9) understand fundamental JavaScript patterns including callbacks, constructors, promises, and returning functions from functions, 10) understand the client server model and how RESTful APIs, JSON and basic HTTP requests work with the web.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 15 / 21 / 0 / 36*

HTML / CSS I - III

This portion of curriculum familiarizes students with HTML and CSS fundamentals. They will learn how to: 1) create an HTML5 document from scratch, 2) use semantic HTML, 3) use the fundamentals of CSS including but not limited to selectors, pseudo selectors, Flexbox, and the box-model, 4) build and style pages that are responsive to any screen size, 5) create basic animations, 6) implement SASS for more efficient styling.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 7.5 / 10.5 / 0 / 18*

React I - V

Students will learn to: 1) understand the differences between React and other front end frameworks such as Angular, 2) set up a basic Webpack configuration allowing the writing of JSX syntax, 3) build and utilize custom components, 4) pass data between components using props, 5) understand how to use CSS in React, as well as React inline styles, 6) implement React Router to create a single page application with multiple views, 7) lifecycle hooks, 8) make HTTP requests using Axios, 9) use architectural patterns and how to manage data with state and redux.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 12.5 / 17.5 / 0 / 30*

AngularJS I - III

Upon completion of the AngularJS portion of the curriculum students will learn to: 1) create an Angular application from scratch, 2) properly implement built in Angular directives and filters, 3) bind data between the controller and the view 4) create and utilize custom controllers, services, and components, 5) make HTTP requests to API's, 6) create single page applications with multiple routes, 7) create components.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 7.5 / 10.5 / 0 / 18*

Node / Massive I - IV

Node is the introduction to server side programming students will learn to: 1) create a basic server that listens for requests, 2) require and export modules from other files, 3) create routes using Express, 4) understand and implement middleware, 5) build a RESTful API from scratch, 6) understand the basics of CORS and sessions, 7) implement basic authentication using Passport.js, 8) connect to a database using Massive.js, 9) perform all CRUD operations on a SQL database through a Node server.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 12.5 / 17.5 / 0 / 30*

SQL I - II

In the SQL section of the curriculum students will learn to: 1) understand the difference between SQL and NoSQL databases, 2) understand different data types, 3) create tables using PostgreSQL, 4) reference and populate tables, 5) understand patterns such as 1 to many and how to implement them with primary and foreign keys.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 5 / 7 / 0 / 12*

Computer Science I - II

During this portion of the curriculum, the students learn about concepts including: 1) recursion, 2) singly linked lists, 3) binary search tree, 4) binary search, 5) bubble, merge, and quick sorting algorithms.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 5 / 7 / 0 / 12*

Unit Testing I - II

In this section of the curriculum the student will learn about: 1) unit testing and why it's important, 2) Test Driven Development and the benefits that come along with using it, 3) Jest and how to implement it with JavaScript testing, 4) endpoint testing and how to implement it using Postman.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 5 / 7 / 0 / 12*

Simulations I - IV

During simulations, students are split into groups and given a project to build out as a team. The project is presented to them from the perspective of an employer to help the students learn to better communicate and work with potential future employers. The projects are also built in such a way that the students have an opportunity to implement new concepts that they have learned during the previous week.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 2 / 26 / 0 / 28*

Projects I - III

During no database, personal and group projects students will implement the vast majority of the above curriculum. These projects will be built from the ground up by the student. During these projects students are required to use what they have learned up to that point in the program so that they can better solidify concepts that they have been taught.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 3 / 154 / 0 / 157*

Job Prep

During job prep, the student are taught: 1) how to best build a portfolio site, 2) how to write a resume, 3) how to utilize LinkedIn to network and job search, 4) training in the interview process.

** Lecture Hrs / Lab Hrs / Externship / Total Hrs - 18 / 10 / 0 / 28*

FAQs

Still have questions that weren't answered in this syllabus? We encourage you to check out our online searchable Help Center that we are always updating with new questions we get from prospective students.

If you still can't find an answer to your question, you can chat with us on our website or send our admissions team an email at admissions@devmountain.com

Contact

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