Savvy Coders

COURSE SYLLABUS
Full Stack Development Course

GENERAL INFORMATION

Instructor Team: Martin Carriel

Brandon Bunch

Cameron Brantley

Jonathan Dove

Johan Bester

Trey Allen

Vivek Khatri

Stephanie Grimshaw

Laurie Wilson

You can contact instructors Via SLACK

Total Class Hours: 144

Website: www.savvycoders.com

PREREQUISITES

A fundamental desire to learn to code is the only major requirement. Students are assigned pre-work and directed to prepare their laptops with the appropriate tooling.

COURSE OBJECTIVES

1. Gain confidence with shell commands and git.
2. Understand general concepts associated with the client-server and request-response cycle.
3. Generate documents using Markdown.
4. Apply semantic HTML and modern CSS to build responsive web layouts.
5. Use JS to add interactivity to web pages.
6. Use JS to manage data.
7. Apply a model-view-updater architecture to create a modern, state-driven single-page application written in vanilla ES2015+ JavaScript.
8. Use JS to build a CRUD server utilizing Node.js and Express
9. Manage long-term data storage via CRUD server and PostgreSQL database.

COURSE DESCRIPTION

Over an intense 12 weeks, students will be taken from knowing just a few basics of web development to being fully qualified for junior developer positions.

The technical portion of our 7-week core curriculum starts by teaching students all about web/software development tooling. This would include version control, text editors, and shell commands and modern linters to help ensure high-quality code. Students start by learning Markdown. Next students apply modern HTML/CSS to create responsive website layouts. From then on, we focus on JS - DOM interactions, managing collections of data by composing functions, receiving data from an API, and converting a traditional static site into a Single Page Application.   After learning how to create and manage a web-page on the front end, students will then learn to create a Node.js CRUD server. They will use this server to manage long-term data storage via a PostgreSQL database.

COURSE CURRICULUM

The main course curriculum is usually updated in between cohort sessions based on prior student outcomes. This is our GIT book-basically your "textbook" supplied via the internet.

ATTENDANCE POLICY

Attendance is mandatory. Missing a class can really set you behind. There is a lot of material to keep up with - this is a 'boot camp', after all.

EMERGENCY CLOSURE STATEMENT

In case of an emergency closure, a makeup class will be on Friday.

DISABILITY & ACCESS CENTER

Savvy Coders accommodates students from all backgrounds or challenges as much as possible.

COURSE SCHEDULE

Week	Proposed Topics
1	The Business of IT and Project Planning, LinkedIn and Resume Work, Capstone Outline, Project Planning, Agile part 1 GitHub link
2	Setting up a Dev Environment, Introductory Terms, Terminal and Shell, `git` and GitHub, JS Primitive Data Types, Variables, Operators, If..else Statements, While and For Loops, UI/UX GitHub link
3	Request-Response Cycle, Local Servers, Chrome Dev Tools, Global Window Object, Functions, Composite Data Types: Arrays & Objects GitHub link
4	HTML Elements & Attributes, CSS Selectors, Properties, Box Model, Pseudo-Selectors, Agile part 2 GitHub Link
5	Team Collaboration on GitHub Hack-a-thon, Array Methods & Superpowers GitHub Link
6	HTML Forms, Formspree, CSS Positioning, Flexbox, Mobile-First Responsive Web Design & Media Queries, Object-Oriented Programming, Function Constructors, Classes, Debugging GitHub Link
7	Single Page Applications, Bundlers, MVU Architecture, Modules, Functional Components, State, Team Collaboration on GitHub Hack-a-thon GitHub Link

8	Routing, Navigo, Lodash, Asynchronous JS, Promises, RESTful APIs, Fetch, Axios [GitHub Link](#)
9	API Keys & Authorization, Query Params, Dotenv, Firebase Authentication [GitHub Link](#)
10	Backend development: Node.js, Building servers with Node, Express, PostgreSQL database
11	Hosting, Capstone Project Work & Mock Interviews
12	Capstone Presentation Work and Demo Day Practice

Evaluation and Graduation Guidelines

Savvy Coders implements at 10-point grading system. Students must secure **at least 8/10 total points to graduate.**

1. Students must complete and effectively present a capstone project. Said project will meet the following general requirements *(1 point for each - **5 points total**):*
    1. Display an effective approach to the project planning process. This includes wireframing, UX/UI design, Trello boards, etc.[4]
    2. Display an understanding of semantic HTML and modern CSS approaches.
    3. Functional interactive SPA with JavaScript, HTML, CSS, Node, Express, API and deployment to Heroku.
    4. Log a sensical, well-organized 'commit' history.
    5. Regular class attendance - *2 pts. total.* 1 point is deducted for each class (maximum of 2 points total). *Special Note:* Any student that misses more than 2 classes over the entire 12-week program may be barred from graduation-depending on their completion of assignments and capstone project.[5]
2. Satisfactory completion of all assigned HW and in-class 'practice project' repo - *3 pts. total.* As with attendance above, students will be deducted 1 point for each missing HW

or for lack of completion of the in-class work. Missing more than 3 points here may also bar a student from graduation.