6 Week Challenge Course Syllabus

Part 1: Course Information

Instructor Information

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Course Description

The course will provide students with the foundations of Web Development and Computer Science through a practical approach.

Prerequisite

None

Textbook & Course Materials

Required Text

PDFs will be given.

Recommended Texts & Other Readings

- The Secrets of the JavaScript Ninja, by John Resig and Bear Bibeault
- Harvard CS50
- FreeCodeCamp (https://freecodecamp.org/)
- MDN (https://developer.mozilla.org/en-US/)
- Devdocs (https://devdocs.io/)

Course Requirements

- Internet connection (Cable or FiOS desirable)
- A smart phone

Course Structure

The course will have two lectures a week, each for 2 hours in length. The 3rd meeting of every week is a Showcase were students will be expected to show the UI and code of the project(s) they made during the week.

Students are expected to spend about 2 hours daily either in class or working on projects, for a total of at least 14 hours a week (168 total course hours).

For group projects or study groups students can meet in the appropriate discord channel.

Part 2: Student Learning Outcomes

- Students will be able to understand the foundations of Web Development.
- Students will be able to understand the foundations of Computer Science.
- Students will have a portfolio with at least 12 projects.

You will meet the objectives listed above through a combination of the following activities in this course:

- Class Attendance
- Project Completion
- External Readings/Videos (provided)

Part 3: Topic Outline/Schedule

- Week 01: Orientation & HTML
 - GitHub setup
 - Discord setup
 - Intro to the Command Line
 - Tips on How to Problem Solve
 - Anatomy of HTML Tags
 - Personal Site Project
- Week 02: CSS
 - Anatomy of CSS Syntax
 - Classes and IDs
 - Internal and External CSS
 - Stylized Personal Site Project
- Week 03: Bootstrap
 - Installing Bootsrap
 - Wireframing (Basics)

- Carousels
- Project Site

Week 04: Intro to JavaScript

- o ES6
- Alerts
- Data Types
- Variables
- Naming Conventions
- String Concatenation
- String Lengths
- Basic Arithmetic
- o BMI Calculator Project
- Personal Project

Week 05: Intermediate JavaScript

- Control Flow
- Arrays
- Loops
- o Fibonacci Challenge
- o Personal Project

Week 06: Intermediate JavaScript

- The Document Object Model (DOM)
- Group project