

Full Stack Web Development And Coding

There are two main objectives to this course. The first is learning how to build websites / web applications and the assets that compose them. The second is to understand the concepts behind computers, networks and full stack development.

Lecture Topics

- Computer Principles
- Bash
- HTML
- CSS
- JavaScript / jQuery
- Wireframing
- Responsive Design
- PHP
- MySQL

Class Sessions

Mon, Weds 6-9pm

9/25 - 1/29 (No class 9/30, 10/9, 10/14, 12/25, 1/1/20, 1/20/20)

Grading

The best result is the knowledge and experience that you will gain during this course, you will also receive a grade based on the following rubric.

Personal Site 25%

Causes Site 35%

Web App 45%

Learning PHP, MySQL, Javascript, CSS and HTML5: A Step-by-step Guide to Creating Dynamic Websites.

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Software

- Sublime Text 3 or Brackets
- Git (Mac) or GitBash (Win)
- MAMP (Mac) or XAMPP (Win)
- Google Chrome
- Firefox Mozilla
- Github or Bitbucket Account
- Trello Account
- A Gmail Account with Google Drive
- Draw.io connected to your Google Drive

Section	Topic
1	<p>Intro to Web Development</p> <ul style="list-style-type: none"> ● Introductions ● Certifications ● Weekly Schedule ● Expectations <p>Getting Started</p> <ul style="list-style-type: none"> ● Web design, coding and development ● Learning Programming Computer Principles ● The Internet, World Wide Web, Client vs Server, Server Requests, and Web Sites ● Software <p>Crowd Breaker</p> <p>Exercise:</p> <p>Setup Accounts</p> <ul style="list-style-type: none"> ● Gmail ● Slack ● Creative Cloud ● Gmetrix ● Certiport ● Terminal ● Github
2	<p>Intro to Design & Coding</p> <ul style="list-style-type: none"> ● How to Boilerplate a site using Brackets ● Keyboard Shortcuts <p>Lesson: BASH</p> <p>Working with the Terminal</p> <ul style="list-style-type: none"> ● Bash Commands ● Boilerplating with Bash
3	<p>Lesson: HTML</p> <ul style="list-style-type: none"> ● Creating HTML Pages ● The index Page ● Syntax ● Tags ● Attributes ● Comments ● Text elements ● Links ● Lists ● Tables ● Containers ● Media
4	<p>Lesson: HTML</p> <ul style="list-style-type: none"> ● Forms <p>Exercise: HTML</p> <ul style="list-style-type: none"> ● Boilerplate site using BASH and HTML <ul style="list-style-type: none"> ○ Build a 3 page site ○ Each page will have links to other pages, H1 titles, an image and a paragraph

5	<p>Lesson: AGILE</p> <p>Agile Methodologies:</p> <ul style="list-style-type: none"> • SCRUM and Sprints <p>Site Diagrams</p> <ul style="list-style-type: none"> • Sitemaps • Wireframing • Mockups <p>Intro to Trello and Draw.io</p> <p>PROJECT 1 SPEC:</p> <ul style="list-style-type: none"> • Build a 2 page personal site • Build in 3 Sprints: <ul style="list-style-type: none"> a. Design Mockups b. Build (HTML and CSS) c. Deploy to GitHub Pages
6	<p>Lesson: Repositories</p> <p>Review BASH</p> <p>Bash - GIT</p> <ul style="list-style-type: none"> • Git • GitHub • GitHub Pages <p>Exercise: Deploy previous site on github pages</p>
7	<p>Lesson: Repositories</p> <ul style="list-style-type: none"> • Branching • Merging • Cloning and Pulling
8	<p>CODE REVIEW</p>
9	<p>Lesson: CSS</p> <p>Browser Web Dev Tools</p> <ul style="list-style-type: none"> • Implementation • Syntax • Typography • Color • Background • Box-Sizing • Padding • Margin • Border • Display • Width • Height • Shadows • Overflow
10	<p>Lesson 17: CSS</p> <ul style="list-style-type: none"> • Float • Positions

	<ul style="list-style-type: none"> • Display Flex • Selectors • Cascading • Media Query
11	<p>Lesson: CSS Code Review</p> <p>Exercise: Project 1 Workshop</p>
12	PROJECT 1 PRESENTATION
13	<p>Lesson: Bootstrap</p> <p>PROJECT 2 SPEC:</p> <ul style="list-style-type: none"> • Build a Landing page for a real business • Build in 3 Sprints: <ul style="list-style-type: none"> ◦ Design Mockups ◦ HTML, CSS, and JS (must be Mobile Responsive) ◦ Launch on GitHub Pages
14	<p>Lesson: JavaScript</p> <ul style="list-style-type: none"> • Intro to Javascript • Script Tag • Comments • Console Log • Alerts • Data Types: <ul style="list-style-type: none"> ◦ Numbers ◦ Booleans ◦ Strings ◦ Arrays • Objects • Comparisons • Logicals • Conditions • Functions • Loops
15	<p>Lesson: JavaScript</p> <ul style="list-style-type: none"> • DOM and Events <p>Exercise:</p> <ul style="list-style-type: none"> • Image Gallery • Conditional Form Handling
16	<p>Lesson: JQuery</p> <ul style="list-style-type: none"> • Introduction • Installation • Document ready • Selectors • Events • Each • Date • Transversals <p>Exercise:</p> <ul style="list-style-type: none"> • Accordion • Image Slider
17	<p>Exercise:</p> <ul style="list-style-type: none"> • Dynamic HTML from JavaScript Object

	Exercise: Project 2 Workshop
18	PROJECT 2 PRESENTATION
19	<p>Lesson: Going Full Stack</p> <p>Discussion on Web2.0</p> <p>MAMP:</p> <ul style="list-style-type: none"> • Introduction and Setup to Local Servers <p>PHP</p> <ul style="list-style-type: none"> • Server Processing • PHP Syntax • Error Handling • Web Programming review • Compare and contrast PHP to JS <p>PROJECT 3 SPEC: Build a Web App Build in 5 Sprints:</p> <ul style="list-style-type: none"> • Mockups, Sitemaps, Flowcharts • HTML, CSS, JS and PHP • Must be Mobile Responsive • MVC • Launch
20	<p>Lesson: PHP</p> <p>New Methods:</p> <ul style="list-style-type: none"> • Includes • Requires • Constants • Echo • Print_r • Constants • Variable Scoping • Extending Objects • Superglobals • Prepping Form for Processing • Form Processing • Post Variables • Echo User inputs <p>Exercise:</p> <ul style="list-style-type: none"> • Familiarize yourself with MAMP • Build an html page using partials
21	<p>Lesson: PHP and SQL</p> <p>PHP</p> <ul style="list-style-type: none"> • Image Handling • Email Generation • Insert Data into SQL Table <p>SQL</p> <ul style="list-style-type: none"> • Databases • Tables • Select from SQL • SQL Statements

	<p>Exercise:</p> <ul style="list-style-type: none"> ● Create a Form with: <ul style="list-style-type: none"> ○ Text ○ Checkbox ○ Radio Buttons ○ Dropdown ○ Text Areas ● Output the user inputs in a page on submit ● Store data from previous html form in json, and mysql
22	<p>Lesson: PHP</p> <ul style="list-style-type: none"> ● Sessions ● Session Variables ● Header Redirects ● POST vs GET ● Isset ● Empty ● File_exists ● Login Query ● Session Destroy <p>Exercise:</p> <ul style="list-style-type: none"> ● Create and destroy a session variable
23	<p>Lesson: SEO</p> <ul style="list-style-type: none"> ● SEO ● Favicon ● Google Analytics
24	Lesson: FileZilla and Remote Environment
25	Project 3 Development and Soft Launch
26	Project 3 Small Group Debug and Testing
27	Project 3 Development Review
28	Project 3 Workshop and Launch
29	<p>Final Presentation: Project 3</p> <ul style="list-style-type: none"> ● 30 Sec: Web app overview ● 1 Min: Feature Details ● 1 Min: Future enhancements ● 3 Min: Feedback