

Web Design And Coding, Winter 2019

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 10/21

Tues 10/22

Mon, Weds October 28 - February 3, 1-4pm

(No class 12/25, 1/1, 1/20)

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.

ISBN: 9781491949450

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 |
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| 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 |

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| 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:<ol style="list-style-type: none">a. Design Mockupsb. 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 |

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| | <ul style="list-style-type: none">• Display Flex• Selectors• Cascading• Media Query |
| 11 | Lesson: CSS Code Review Exercise: Project 1 Workshop |
| 12 | PROJECT 1 PRESENTATION |
| 13 | Lesson: Bootstrap PROJECT 2 SPEC: <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 | Lesson: JavaScript <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 | Lesson: JavaScript <ul style="list-style-type: none">• DOM and Events Exercise: <ul style="list-style-type: none">• Image Gallery• Conditional Form Handling |
| 16 | Lesson: JQuery <ul style="list-style-type: none">• Introduction• Installation• Document ready• Selectors• Events• Each• Date• Transversals Exercise: <ul style="list-style-type: none">• Accordion• Image Slider |
| 17 | Exercise: <ul style="list-style-type: none">• Dynamic HTML from JavaScript Object |

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| | 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 |

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| | <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 |