



Front End Boot Camp

Course Overview

The Front End Boot Camp will teach the concepts and methods used to do effective front-end web development. Using code demonstrations, group discussion and a comprehensive project, the course will focus on web browser technologies such as HTML5, CSS and JavaScript. Students will explore the tools, languages and architectural design patterns required to build typical enterprise-class web applications. Additionally, the course will include topics such as Node.js, MongoDB, SASS, Globalization, Security and many other complementary and relevant topics. While the course will feature a very significant amount of hands on software development, the primary focus of the course is to understand the concepts the develop and power web applications.

Learning Style - Hands on

Course Duration - 3 weeks

Agenda

Week 1 - Monday, April 13th through Friday, April 17th

Day 1 - Monday, April 13th

- Setting up workspaces
- Getting to know Git
- Bower / NPM / Grunt
- Simple Node.js Web Server
- Web Development Basics

Day 2 - Tuesday, April 14th

- HTML Paragraphs, Lists, Divs, Spans
- HTML Tables, Links, Images
- HTML5 Semantic Tags
- HTML5 Audio / Video

Day 3 - Wednesday, April 15th

- CSS Concepts
- Basic & CSS3 Selectors
- Box Model, Floating and Positioning
- Columns
- CSS Flex-Box

Day 4 - Thursday, April 16th



- JavaScript Concepts
- Variables, Conditionals, Functions, Browser Objects
- Arrays, Objects, Loops
- Browser Events & Event Listening

Day 5 - Friday, April 17th

- JavaScript DOM Interaction
- jQuery DOM Interaction & Events
- Dojo DOM Interaction & Events
- HTML Forms & JavaScript Validation

Week 2 - Monday, April 20th through Friday, April 24th

Day 6 - Monday, April 20th

- Node.js Web Server with REST
- HTTP Protocol
- Ajax (JS, jQuery & Dojo)
- Promises

Day 7 - Tuesday, April 21th

- Security (David Cawley), 9 – 11 am
- Cookies & Security
- XSS / CORS
- Local Storage / Session Storage / WebSQL / IndexedDB
- SASS & SCSS

Day 8 - Wednesday, April 22th

- CSS Transitions, Transformations and Animation
- Media Queries
- Grids
- Mobile First - Responsive Design
- Touch Interaction

Day 9 - Thursday, April 23th

- Dojo and Dijit Widgets
- Dijit Menu Widgets
- Accessibility (Ted Drake), 11 am – 1 pm (with pizza lunch)
- Dijit Miscellaneous Widgets
- Dijit Form Widgets
- Dojo Layout Widgets
- Creating Dojo Widgets



Day 10 - Friday, April 24th

- Dependency Management: Require.js & Dojo AMD
- JavaScript Module Pattern
- JavaScript Closures, Prototypes, Objects, Bind vs. Call vs. Apply
- Dojo Classes

Week 3 - Monday, April 27th through Friday, May 1st

Day 11 - Monday, April 27th

- Single Page Applications
- JavaScript MVC
- JavaScript Design Patterns

Day 12 - Tuesday, April 28th

- Globalization (John O'Conner), 9 – 11 am
- Underscore
- Backbone models & collections
- Backbone router
- Backbone views

Day 13 - Wednesday, April 29th

- Backbone bindings and Advanced subviews
- Marionette
- Marionette View Types
- Marionnet.BossView
- Managing Views

Day 14 - Thursday, April 30th

- Backbone & Event Registration
- Messaging
- Backbone.stickit
- Backbone-nested
- Backbone Validation

Day 15 - Friday, April 24th

- Intern Unit Testing
- Intern Functional Testing
- Intern End-To-End Testing

