



## ***Front End Development – Detailed Tech Syllabus:***

**80 Meetings, 400 Hours**

### **Module 1 – Introduction**

**8 Meetings, 40 H**

#### **Fundamentals**

Introduction to Application Development  
Web Technologies  
Client-Server Communication  
Server Side Programming Technologies  
Introduction to Client Side Programming  
HTML5 CSS3 JavaScript  
IDE: WebStorm

### **Module 2 - Basic Client Side Programming**

**23 Meetings, 115 H**

#### **HTML5**

Tag Structure  
DOM  
Web Browsers

#### **CSS3**

Box Model  
Stylesheets  
Classes  
Selectors  
Bootstrap  
Sass/Less - TBD

#### **JavaScript**

Variables  
Operators  
Conditional Statements  
Looping  
Functions & Objects  
Events & DOM Manipulation  
Object Oriented JavaScript  
Communication: Web Sockets



## JQuery

- Object
- Selecting Elements
- Manipulating Elements
- Attributes
- Events
- Effects

## Module 3 - Advanced Client Side Programming

**22 Meetings, 110 H**

### Advanced JavaScript

- JSON
- Class
- Property
- Methods
- Constructor
- Encapsulation
- Inheritance
- AJAX

### HTML5 API

- Canvas
- Multimedia
- Forms
- Communication
- Web Sockets
- Web Workers
- Web Storage
- Offline Applications

### AngularJS

- Bootstrapping
- Templating: Static & Angular Templates
- Filtering Repeaters
- Two-way Data Binding
- XHRs
- Dependency Injection
- Templating Links & Images
- Routing & Multiple Views
- Filters & Event Handlers
- UI Router
- Directives



## Ionic? to lose - Cordova

- Accelerometer
- Camera
- Capture
- Compass
- Connection
- Contacts
- Device
- Events
- File
- Globalization
- Media
- Notification
- Storage

## Server Side Technologis Overview

- Node.JS
- Scala
- MongoDB/Parse?

Design Patterns

## Module 3 – Final Project

27 Meetings, 135 H

### Project

Project Product:

A responsive single page app. Probably an implementation of Google Docs.

Optional – a Wix Plugin module.

UX – hover, animations, runtime performance

Requirements Documentation

Design and Architecture Documentation

Development Methodologies: Test Driven Development and Agile

Scrum

Project Implementation

? Parse?