Coding Dojo Online Bootcamp

Syllabus

Important Contacts

- Captain/Instructor: Todd Enders - tenders@codingdojo.com
- Community Manager: Jessica Capó - jcapo@codingdojo.com
- Career Services Manager: Susan Myburgh - smyburgh@codingdojo.com
- Instruction Staff
  - Wes Harper - wharper@codingdojo.com
  - Jason Franz - jfranz@codingdojo.com
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Length of Technical Instruction - <u>21 Weeks</u> - Web Fundamentals + 2 Full Stacks

Length of Career Readiness Instruction - Throughout Program & Post-Bootcamp -

- **Weekly Career Huddles throughout program**
- **A 4-day Career Readiness Workshop after Stacks are completed.**
- **Career Services Managers provide ongoing support post-bootcamp as needed.**

Important Links & Software

- Coding Dojo Learning Platform - https://learn.codingdojo.com/
- Visual Studio Code Download - https://code.visualstudio.com/
- NodeJS Download - https://nodejs.org/en/
  - Used in MEAN stack and for optional Saturday Algorithms

Prework

- Pre-Bootcamp Module @ https://learn.codingdojo.com/ which includes
  - The Algorithm App @ www.codingdojo.com/algorithm
  - Intro to Programming Course @ www.codingdojo.com/academy

Orientation - Week 1 Tuesday 5pm PST (Subject to change, refer to Instructor Welcome Email)

🖥️ WEB FUNDAMENTALS

Weeks 1 - 4: Web Fundamentals **** Lectures on Tues & Thurs 4pm PST & 6pm PST ****

- Week 1: HTML & CSS
    - Tues: Request/Response Cycle & HTML
    - Thurs: Intro to CSS
    - Weekend Pre-recording: Lego Concept & Box Model
- Week 2: More CSS
    - Tues: Advanced CSS, Lego Concept, **Demo**
    - Thurs: Advanced CSS, **Demo**
    - Weekend Pre-recording: Terminal Commands & Git
- **===== Weekend of Week 2: Assessment Exam (HTML and CSS) =====**
    - 48 hours to complete the exam
    - Begin exam by Sunday night
    - Retakes are likely to occur and are encouraged
- Week 3: Javascript and jQuery
    - Tues: Intro to Javascript - Data Types, Control Structures, Functions
    - Thurs: More Javascript and Intro to jQuery
    - Weekend Pre-recording: Advanced jQuery, Fun w/ Functions or similar assignment **Demo**
- Week 4: MySQL
    - Tues: ERDs
    - Thurs: MySQL Queries, SQL Countries **Demo**
    - Weekend Pre-recording: Responsive Web Design and Intro to Python
- Optional Content: jQuery UI, APIs and AJAX, More on Git

🐍 PYTHON

Weeks 5 - 8: Python 1 **** Lectures on Tues & Thurs Time TBD****

- Week 5: Intro to Python
    - Tues: Python Fundamentals - Data Types(All primitives and Basic Reference Types), Conditionals, For loops, Functions
    - Thurs: Review of Core Concepts

- - Weekend Pre-recording: Virtual Environments and Intro to Flask, possible demo of Assignments
  - Week 6: Flask
    - Tues: Routing, templates, data
    - Thurs: Session
    - Weekend Pre-recording: Request/Response Cycle
  - Week 7: Databases
    - Tues: Intro to Databases, SQL, ERDs
    - Thurs: Advanced SQL queries
    - Weekend Pre-recording: Practicing Programming Architecture, Full flask Intro + Demo
  - Week 8: Flask + MySQL
    - Tues: MySQL Connection, simple queries
    - Thurs: Login Registration - Building a simple web app with data
    - Weekend Pre-recording: Python 1 Recap(How it fits into python 2), Wall Demo, OOP Concepts intro(Where have we used it already)

Weeks 9 - 12: Python 2 ** **Lectures on Mon & Wed Time TBD** **

- - Week 9: Intro to OOP and Django
    - Tues: OOP - Class, Instance, Inheritance(Tie back to flask + mysql classes)
    - Thurs: Intro to MVC/MTV
    - Weekend Pre-recording: Demo of Flask App turned to Django
  - Week 10: Django
    - Tues: Routing, Render, Form Data/Session
    - Thurs: Session, templating
    - Weekend Pre-recording: Intro to ORM, models, sqlite3
  - Week 11: Django Models
    - Tues: ORMs and Models
    - Thurs: Models, methods, Managers and Many to Many
    - Weekend Pre-recording: Full Django Demo(remake a popular app)
  - Week 12: Django & Deployment
    - Tues: Deployment
    - Thurs: **Review**
    - Weekend Pre-recording: TBD
  - **===== Anytime Week 12: Assessment Exam (Django) =====**
    - 48 hours to complete the exam
    - Begin exam by Sunday night
    - Retakes are likely to occur and are encouraged

Week 13: Gap Week (Python Exam Retakes)

- In order to move onto the second full-stack, you must complete the following:
    - **70%** of required assignments turned in
    - **80%** of discussion topics responded to
    - **8.0** or higher on Python exam

MEAN

Weeks 14 - 17: MEAN 1 **** Lectures on Mon & Wed Time TBD ****

- Week 14: JavaScript Fundamentals
    - Mon: Course Introduction - JS Basics Overview
    - Wed: JavaScript Objects
    - Weekend Pre-recording: Callbacks with JS Library
- Week 15: Asynchronous Programming
    - Mon: Introduction to Asynchronous Programming
    - Wed: Promises
    - Weekend Pre-recording: Objects and Promises
- Week 16: Express Application Framework
    - Mon: Express Basics
    - Wed: Express Middleware
    - Weekend Pre-recording: Sockets
- Week 17: NoSQL
    - Mon: Introduction to MongoDB/Mongoose
    - Wed: CRUD Express Mongoose Integration
    - Weekend Pre-recording: Application Modularization

Weeks 18 - 21: MEAN 2 **** Lectures on Tues & Thurs Time TBD ****

- Week 18: Angular Overview
    - Tues: Introduction to TypeScript
    - Thurs: Angular CLI/Project Structure
    - Weekend Pre-recording: Form Validations
- Week 19: Data Manipulation
    - Tues: @input/@Output
    - Thurs: Custom Pipes

- - - Weekend Pre-recording: Search Pipe
  - Week 20: External Data
    - Tues: Angular Services
    - Thurs: Angular Routing
    - Weekend Pre-recording: Route Resolvers
  - Week 21: Full MEAN and Deployment
    - Tues: Express and Angular Integration
    - Thurs: Login and Registration with bcrypt
    - Weekend Pre-recording: Deployment + Route Guard
  - **=====Anytime of Week 21: Assessment Exam (Full MEAN) =====**
    - 48 hours to complete the exam
    - Begin exam by Sunday night
    - Retakes are likely to occur and are encouraged

C#/ASP.NET CORE

Weeks 14 - 17: C#/ASP.NET Core 1 **** Lectures on Mon & Wed Time TBD ****

- Week 14: Language Fundamentals
  - Mon: C# Types, Conditionals, Functions
  - Wed: Object Oriented Programming in C#
  - Weekend Pre-recording: Interfaces, Generic Types
- Week 15: ASP.NET Core I
  - Mon: Linq (Language Integrated Query)
  - Wed: Intro to AspNetCore MVC
  - Weekend Pre-recording: Debugging Your Web App
- Week 16: ASP.NET Core II
  - Mon: Controller to View Communication
  - Wed: Using Session
  - Weekend Pre-recording: C# Extension Methods
- Week 17: Models
  - Mon: ASP Models
  - Wed: Connecting to MySQL
  - Weekend Pre-recording: Securing DB Connection String

Weeks 18 - 21: C#/ASP.NET Core 2 **** Lectures on Tues & Thurs Time TBD ****

- Week 18: Models Cont.
  - Tues: User Authentication with Session
  - Thurs: ViewModels/Partials
  - Weekend Pre-recording: Custom Attributes (Controller/Model)
- Week 19: ORM Introductions
  - Tues: Dapper
  - Thurs: Entity Framework
  - Weekend Pre-recording: ASP Dependency Injection Explained
- Week 20: Entity Framework
  - Tues: Relating Models (One to Many)
  - Thurs: Relating Models (Many to Many)
  - Weekend Pre-recording: Linq Queries
- Week 21: Belt Prep
  - Tues: AWS Deployment
  - Thurs: Belt Prep Session
  - Weekend Pre-recording: Next Steps
- **=====Anytime of Week 21: Assessment Exam=====**
  - 48 hours to complete the exam
  - Begin exam by Sunday night
  - Retakes are likely to occur and are encouraged

CAREER READINESS WEEK

- **Career Readiness Week** is a 4-day workshop series that serves to prepare alumni to be self-sufficient job seekers long into their careers as Developers. We cover a variety of topics and make it our goal to assure that each person who attends Career Readiness Week has the tools, resources and skills needed to ace the job hunt. Below is a description of what we cover in Career Readiness Week *(note that this schedule is subject to change)*.
  - **Monday:** Career Management, Elevator Pitch, Mind Mapping
  - **Tuesday:** Technical Resumes and Cover Letters
  - **Wednesday:** Networking, LinkedIn, Job Search Strategy
  - **Thursday:** Interviewing and Mock Technical Interview preparation
- **Post-Bootcamp Career One-on-One**
  - Students and alumni have access to scheduling one-on-one time to chat with your Career Services Manager at any time. However, after you complete Career

Readiness Week each student will have a dedicated one-on-one time with their Career Services Manager in order to set specific goals and make a career action plan to ensure success.