# Webd 170 JavaScript II/Mean Stack Course

I would like to welcome you to JavaScript II- here we will extend the programming concepts we learned in the fundamentals course and learn how to use frameworks and libraries.

### Learning Objectives

By the end of this course, the student will be able to:

Learn why server-side JavaScript is useful

Understand the design of single-page applications and how AngularJS facilitates their development

Properly separate the model, view, and controller layers of your application and implement them using AngularJS

Master AngularJS expressions, filters, and scopes

Build Angular forms

Elegantly implement Ajax in your AngularJS applications

Write AngularJS directives

Unit test and end-to-end test your AngularJS application

Possess a basic understanding of AngularJS’s native services

Create custom Angular services

Understand how Angular processes directives, including directive scope, priority, and transclusion

Build custom directives

Implement basic user interfaces with Angular Forms

Make Angular work with your chosen UI widget framework

Install Node.js

Learn how Node.js is architected to allow high scalability with asynchronous code

Create basic web applications with Node.js

Automate tasks with Grunt

Use stream I/O to efficiently serve the web pages

Create modules to organize the server

Test the reliability of the application with unit tests

Convert the application to an MVC framework using Express

Interface to a MongoDB database and a web service

Understand Mongo as a data store

Be comfortable with Mongo's query and update languages

Work with the common use-cases and architectures of Mongo

Use Mongo's built-in JavaScript interpreter

Query Mongo using Mongo's JSON-based query language

Index Mongo collections

Handle data with Mongo's built-in MapReduce capabilities.

## Course Overview

Session 1: Review Javascript 1, Introduce Regular expresssions, XML parsing

Session 2: Ajax

Session 3: JQuery (Cont) Deeper into Ajax

Session 4: Advanced JavaScript (Working with API’s/JSON)

Session 5: Intro to Other Javascript Frameworks (React JS)

Session 6: Intro to Mean Stack (Overview)

Session 7: Angular

Session 8: Angular

Session 9: Angular

Session 10: Angular

Session 11: Node

Session 12: Express JS

Session 13: Mongo

Session 14: Mongo

Session 15: Mean Stack Conclusion

Session 16:Projects Due

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