Course Outline

Module 1: Introduction

* Course Objectives
* Course Outline
* What is Angular
* Why use Angular

Module 2: AngularJS to Angular 5

* What’s Changed
* Semantic Versioning

Module 3: Introduction to TypeScript

* Why Use TypeScript
* Basic Types
* Classes and Interfaces
* Type Definitions
* Compiling TypeScript

Module 4: ES2015 Primer

* Let and Const
* Template Strings
* Lambda Functions
* Modules

Module 5: Environment Setup

* Node / NPM
* Polyfills
* TypeScript
* Module Bundler (Webpack)
* Code Linting
* Test Setup
* Application File Structure
* Angular CLI
* Code Editors

Module 6: Getting Started

* Our First Component

Module 7: Modules

* Why use Modules
* NgModule
* Declarations
* Providers
* Imports
* Bootstrapping
* The Core Module
* Shared Modules

Module 8: Components

* Introduction to Components
* Component Architecture Patterns
* Decorator Metadata
* State & Behaviour
* Inputs and Outputs

Module 9: Templates

* Inline vs External
* Template Expressions
* Data Bindings
* Built-in Structural Directives
* Built-in Attribute Directives

Module 10: Custom Directives

* Types of Directive
* Create your own Structural Directive
* Create your own Attribute Directive

Module 11: Pipes

* Built-in Pipes
* Custom Pipes

Module 12: Services

* Introduction to Services
* Building a Service

Module 13: Dependency Injection

* Introduction to Dependency Injection
* Injectors & Providers
* Registering Providers

Module 14: Lifecycle Hooks

* Component LifeCycle
* Using ngOnInit
* All lifecycle Hooks

Module 15: Change Detection

* What is Change Detection
* Zone.js

Module 16: Routing

* The Component Router
* Defining Routes
* Navigation
* Route Params
* Child Routes

Module 17: Advanced Routing

* Route Guards
* Route Resolves

Module 18: Template-driven Forms

* Introduction to forms
* Template-driven forms
* Validation

Module 19: Model-driven Forms

* Introduction to ‘Reactive’ forms
* FormGroup & FormControl
* Validators

Module 20: Asynchronous Operations

* Introduction to Async
* Promises
* Observables
* Async Pipes
* HTTP Request / Response

Module 21: Advanced HTTP

* Headers & Request Settings
* Providing HTTP

Module 22: Component Styling

* Introduction to Angular Styling
* Component Styling
* Shadow DOM
* Loading Styles

Module 23: Animation

* Introduction to Animations
* State & Transitions
* Animatable Properties
* Keyframes

Module 24: Testing

* Introduction to Testing
* Unit Testing
* E2E Testing

Module 25: Security

* Security in Angular
* Sanitization
* Trusting Values
* Cross-site Request Forgery

Module 26: Internationalization

* Pre-compiled and runtime
* Using ng2-Translate

Module 27: Performance

* Change Detection Strategy
* Running outside the Zone
* Web Workers

Module 28: Optimization & Deployment

* Precompiling (AoT)
* Lazy Loading
* Deployment Best Practices
* Production Mode

Module 29: Upgrading from AngularJS 1.X to Angular 2+ (Optional)

* Introduction to Upgrading
* Project Preparation
* Upgrade Adapter

Module 30: Native Applications

* Introduction to Native
* Cordova
* Ionic
* React Native
* NativeScript
* Progressive Web Apps
* Electron

Module 31: Server-side Rendering

* Introduction to Server-side Rendering
* Angular Universal

Module 32: Conclusion and Resources