**Section 1 - Getting Started**

* C# Fundamentals
  + Namespaces, Input and Output
  + Operators and Control Constructs
  + Value data types, Arrays, and References
* Method Parameters
  + Using params
  + Using ref
  + Using out

**Section 2 - Classes and Objects**

* Class Design
  + Fields, Properties, Accessors
  + Constructors, Destructors, this keyword
  + Method Overloading
  + Static Fields and Methods
* Inheritance
  + Polymorphism with virtual and override
  + Using base with Constructors and Methods
* Classes and Structs
  + Abstract Classes and Methods
  + Sealed Classes
  + The Object Class
  + Boxing and Unboxing
  + Creating and Using Structs

**Section 3 - Working with Objects**

* Exception Handling
  + try, catch, throw, finally
  + Exception Objects
* Interfaces
  + Implementing and Extending Interfaces
  + The is and as Operators
  + Interfaces vs. Abstract Classes
  + Qualified Interfaces
* Resource Management

**Section 4 - Delegates and Events**

* Delegates
  + The delegate keyword
  + Assigning Methods to Delegates
  + Anonymous Methods, Lambda Expressions
* Events
  + The event keyword
  + Publish-Subscribe Pattern
  + Event Properties and Handlers
* Callbacks
  + Using AsyncCallback and IAsyncResult
* Standard Events
  + Using EventHandler and EventArgs

**Section 5 - Windows Programming in C#**

* Windows Forms
* Controls and Components
  + Label, Button, TextBox, CheckBox
  + ComboBox, RadioButtons, ListBox
  + DateTimePicker, ImageList, Panel
  + FlowLayoutPanel and TableLayoutPanel
* Window Applications
  + Window Events
  + MenuBars, MenuItems, Status Bars

**Section 6 - Threads**

* The Thread Class
* Starting Threads, Thread Priorities
* Timer Threads
* Interlocked, Monitor, and lock()

**Section 7 - Generics and Collections**

* Generics
  + Generic Methods and Classes
  + Generic Delegates
* Collections
  + Indexers
  + Stack and Queue
  + ArrayList, List, LinkedList
  + Dictionary

**Section 8 - File I/O and Streams**

* File and Directory Management
* Reading and Writing Text Files
* Reading and Writing Binary Files

**Section 9 Using Layouts, CSS and JavaScript in ASP.NET Core MVC**

* Using Layouts
* Using CSS and JavaScript
* Using jQuery
* Lab : Using Layouts, CSS and JavaScript in ASP.NET Core

**Section 10 Data access from (ADO) and (Entity Framework)**