

**#Learn\_from\_Home**

## **C# Programming**

Course Code: LFH/DOTNET/01

Duration: 15 hours

### **Course Syllabus**

#### **INTRODUCTION**

This industry oriented course is developed by both the Software development division & Training division of **ipsr solutions limited**. IPSR is a **public limited IT company** with 20 years of expertise in [Software product development](#), [Training services](#), [Placement services](#) & [Digital Marketing services](#). During the past 2 decades, IPSR has trained candidates from **50+ countries** and helped **40000+ candidates** to build their IT career. Our IT services division is a pioneer in development of **Academic solution products**, incorporating cutting edge technologies like Artificial Intelligence, Data Analytics and Machine learning. Live industry experts from this IT division contribute a major role in delivering this course. Our placement division is having **1500+ placement tie-up companies** and we are conducting [recruitment on all days](#).

The Course curriculum is designed and developed by a team of expertise panel lead by following academicians

- ❑ **Dr. Mendus Jacob, M.Sc., M.Phil., Ph.D., MloD**
  - ❑ M.D & C.E.O - IPSR & Valin Technologies, U.K.
  - ❑ Director - MCA, Marian College, Kuttikkanam (Autonomous)
  - ❑ Former Director of School of Applicable Mathematics, M.G. University.
  - ❑ Academician and Entrepreneur with 30+ years experience
- ❑ **Dr. Sunil Job K.A, M.Sc, M.Ed, M.Phil, Ph.D., RHCE**
  - ❑ Chief of Academic Solutions - IPSR
  - ❑ Former college Principal and a Specialist in Data Analytics & Machine Learning
  - ❑ Blogger and a Resource person for National conferences
  - ❑ Academician with 25+ years experience



## **What you'll learn**

✓ .Net Framework Architecture, C# Language Basics, Functions, Arrays, Collections, Generics , OOPS

## **Description**

This is a foundation course on C#

## **Course Outcome (CO)**

While successfully completing this course, the learner will be able to:

→ Do basic programming in C#

## **What does this course give you?**

→ Skills to use C# in desktop and web application development

## **Course content**

**Pre-requisite: Nil**

### **MS.NET Framework Introduction**

- The .NET Framework - an Overview
- Framework Components
- MS.NET Base Class Library
- MS.NET Namespaces
- The Common Language Runtime (CLR)
- MS.NET Memory Management / Garbage Collection
- Common Type System (CTS)
- Common Language Specification (CLS)

### **VS.NET and Entry Point Method –Main**

- Introduction to Project and Solution in Studio
- Entry point method - Main.
- Compiling and Building Projects

### **Language Syntax**

- Basic C# Syntax
- Comments
- Data Types, Variables
- Value type and Reference Type
- Operators
- Flow Control and conditional statements



## Arrays

- Initializing Arrays
- Accessing Array Elements
- Different Type of Arrays
- Array Functions

## Methods

- Defining Methods in C#
- Calling Methods in C#
- Recursive Method Call .
- Passing Parameters to a Method
- Passing Parameters by Value

## Strings

- Creating a String Object
- Properties of the String Class
- Methods of the String Class

## Collections

- ArrayList
- SortedList
- Hash Tables
- Stack
- Queue



## Generic Collections

- List<T>
- Dictionary<TKey,TValue>

## OOPs-Concept

- OOP's Overview.
- Classes and Objects
- Constructor –Types of Constructor
- Types of Inheritance
- Polymorphism
  - Overloading and Overriding
- Encapsulation
- Overview of Abstract Class & Interface
- Interface and abstract class with examples

## Contact Us

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We have branches at Kochi, Thiruvananthapuram, Calicut and Bengaluru.