**Course description**

This is an introductory 3-day course intended for beginners to programming. You'll learn to develop database connected desktop or web applications for the .NET framework.

It is delivered online using video conferencing and remote desktop software, enabling the instructor to view your code and assist with exercises remotely.

Topics include Core Language Features; Object-oriented design; Collections & LINQ; Exceptions and SQL. The content can be customised so that the content matches your requirements.

The course can be provided to a team or as individual tuition for a fee of £1200+VAT for 3 days. To discuss this course further, or to make a booking, please telephone 0118 966 4994 or email mailbox@javaconsult.co.uk

**What you will learn**

- .NET Architecture and Visual Studio
- Core Language Features
- Classes and Objects
- Inheritance
- Arrays and Collections
- LINQ
- Handling exceptions
- Reading and writing to a database
- Building a MVC Web Application
- Deploying a REST service
- Building a WPF Desktop application

**Prerequisites**

No existing programming experience is assumed. The pace and content can be adjusted to suit your requirements.

**Related courses**

Our Advanced .NET course is intended for developers who are already familiar with object-oriented programming, either in .NET or a similar language.

**Course instructor**

Originally a Civil Engineer with a BSc from London University the course instructor, Simon Dineen, has 20 years' experience in .NET training and development.

**Course outline**

1.  .NET Architecture and Visual Studio

    - The Common Language Runtime
    - Understanding assemblies and namespaces
    - The Common Type System and the Common Language Specification
    - Compiling, running and debugging  programs

2.  Core Language Features

    - Data types, conversions and casting
    - Operators, precedence and associativity
    - Decision structures
    - Repetition

3.  Objects and Types

    - Static methods
    - UML class diagrams and object diagrams
    - Fields, methods and properties
    - Instantiating a class
    - Auto-implemented properties
    - Constructors and overloading

4.  Inheritance

    - Inheriting a base class
    - Overriding methods in derived classes
    - Constructors in a hierarchy
    - Defining scope and visibility

5. Arrays, Collections and LINQ

    - Building arrays and using polymorphism
    - Collections classes and interfaces
    - using LINQ to interrogate data from a variety of sources

6. Databases

    - SQL expressions for creating, updating and retrieving data
    - Unmanaged resources and using blocks
    - Handling exceptions

7. MVC Web Applications

    - Controllers, Models and Views
    - Connecting to the data layer built previously
    - Displaying a list
    - Writing to the data layer from an HTML form

8. Web API

- REST Services and HTTP methods
- Deploying and testing a web service

9. WPF Desktop applications

- Overview of Windows Presentation Foundation
- Building a window with XAML
- Handling events and binding to data