

# Diploma in .Net Technology

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**Duration:** 3 Months

**Prerequisites**

- Knowledge of any programming language C, C++, Java

**Web Designing**

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**1. HTML / HTML5**

- Introduction
- Basics, Elements , Attributes
- Paragraphs and Formatting
- HTML Skeleton, Links, Images
- HTML Tables, Blocks
- HTML Lists, Quick List
- HTML Blocks
- HTML Layouts & Forms, IFrames
- HTML Colors
- HTML5 Intro
- HTML5 Video
- HTML5 Audio
- HTML5 Input Types
- HTML5 Form Attributes

**2. CSS / CSS3**

- Introduction
- Syntax
- Id & Class
- Backgrounds
- Text and Fonts
- Links and Lists
- Box Model
- Advanced Topics
  - Dimensions
  - Display
  - Positioning
  - Floating
  - Align
- CSS3 Borders
- CSS3 Backgrounds
- CSS3 Text Effects
- CSS3 Fonts

**3. JavaScript**

- Introduction
- Statements & Comments
- Variables
- Operators and Comparisons
- Conditional Statements and Loops
- User Defined Functions
- JS Objects
- JS Validations

## **C# Programming**

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### **1. Introduction to .NET Framework**

- What is .NET Framework?
- What are components of .NET Framework?
- IDE for .NET

### **2. Writing C# classes**

- Class Basics, Constructors, Destructors
- Using Methods in Classes
- Properties
- Indexers

### **3. Language Fundamentals & Constructs**

- Comments, Variables, Constants
- Controlled Structure
- Looping Structures

### **4. Inheritance and Polymorphism**

- Extending Classes
- Constructors in Inheritance
- Polymorphism
  - Function Overloading, Operator Overloading
  - Dynamic Polymorphism

### **5. Exception Handling**

- Try, Catch, Throw
- System Defined Exceptions
- User Defined Exceptions

### **6. Attributes & Reflection**

- User Defined Attributes
- Predefined Attributes
- Reflection
  - Introspection of Classes, Methods, Parameters, Properties

### **7. Events & Delegates**

- Event Handling in C#
- Delegates
  - Delegates
  - Multicasting Delegates

- Delegate Chaining

### **8. Collection Framework**

- Arraylist, List, Stack, Queue
- IEnumerable, IEnumerator, IComparer interfaces

### **9. Generics & Anonymous Methods**

- Generics in C#
- Generics for User Defined Functions and Classes
- Anonymous Methods

### **10. Multithreading**

- Thread Class
- Common Methods of Thread Class
- Creating, Managing and Destroying Threads

### **11. File I/O and Serialization**

- File Handling
  - Creating, Deleting files
- Serialization

### **12. XML using .NET**

- Creating XML file with .NET
- Reading XML Document with .NET

### **13. Windows Application**

- Introduction to Windows Forms
- Basic Controls of Windows Form
- MDI Container Form
- Adding Menu Bar, ToolBar and Status Bar to Form
- Event Handling with Forms

### **14. Deployment**

- XCOPY
- CAB projects
- Merge module
- ClickOnce

## ASP.NET

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### 1. Introduction to ASP.NET

- .NET Framework Architecture
- Common Language Runtime
- Common Type Specification
- Web Configuration File

### 2. ASP.NET Server Control

- Asp.NET Server Controls
- HTML Controls
- ASP.NET Vs Server Controls
- User Controls
- Advanced Controls

### 3. Validation Controls

- Types of Validation
- Compare Validator
- Range Validator
- Regular Expression Validator
- Required Field Validator
- Custom Validator
- Validation Summary

### 4. Master Pages

- Creating Master Pages
- Creating Content Page
- User Controls

- CSS, Skins, Themes

### 5. State Management & Caching

- Client Side State Management
- Server Side State Management
- Caching,
- Profile Management
- Tracing,
- Query String
- View State
- Session
- Application State

### 6. Web Services

- Creating Web services
- Hosting Web services
- Consuming Web services

### 7. AJAX

- AJAX Control Toolkit
  - ScriptManager
  - ScriptManagerProxy
  - UpdatePanel
  - UpdateProgress
  - Timer
- AJAX Scripting

## Database Concepts

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### 1. ADO.NET

- Database Basics
- Connection To ADO.Net
- Query, and SubQuery
- Connecting ASP.NET Application with Database
- DataSet, DataTable
- SqlCommand,SqlConnection, SqlDataAdaptor,
- Using Stored Procedure

### 2. LINQ

- Introduction of LINQ
- Why LINQ and advantages of LINQ
- LINQ Query Syntax
- Standard Query Operators:
- Lambda Expression
- LINQ to XML

### 3. XML Data Access

- XML Introduction
- XML Syntax
- XML Elements
- XML Attributes
- XML Validation
- XML Validator
- XML Viewing
- XML CSS
- XML XSLT

### 4. Testing & Deployment

- Unit Testing
- Publishing Application

❖ **Industry Project under the Guidance of .Net Expert.**