

**3IT42: DOT NET TECHNOLOGY**  
**CREDITS – 4 (LTP: 3,0,1)**

**Course Objective:**

To be familiar with Microsoft.Net, C# and ASP.NET technologies, as well as working with variables, data types, standard programming skills and Windows form.

**Teaching and Assessment Scheme:**

Teaching Scheme (Hours per Week)			Credits	Assessment Scheme				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE	CE	ESE	CE	150	
3	0	2	4	60	40	20		30

**Course Contents:**

Unit No.	Topics	Teaching Hours
1	<b>Introduction to .NET:</b> Introduction to dot net, Dot net overview, .NET framework, MSIL, CLR, CLS, CTS, Namespaces, Assemblies the common language implementation, Assemblies, Garbage collection, The end to DLL hell, Managed execution.	4
2	<b>C# .NET:</b> C# language fundamentals, Name spaces, Constructor and destructors, Object-oriented programming in C# , Property and indexers, Events and delegates, Debugging and error handling, Files and I/O, String manipulation.	6
3	<b>Windows Forms and Controls:</b> Windows forms library, Windows forms and controls, Windows forms properties and events, Windows form controls, Menus, Dialogs, ToolTips and progress bars, Inheritance with forms.	6
4	<b>ADO.NET:</b> Features of ADO.NET, ADO.NET compared to classic ADO, Datasets, Managed providers, Data binding, Databases and data access using ADO.NET.	5
5	<b>ASP.NET:</b> Introduction to ASP.NET, Difference between ASP and ASP .Net, Working with web and HTML controls, Using rich server controls, Configuration overview, Using the web site administration tool, Login controls, Overview of ASP.NET validation controls, Using the simple validations.	7
6	<b>Themes and Master pages:</b> Creating a consistent web site, .NET themes: Working with CSS and scene files, Master pages, Working with content place holder and nested master page.	4
7	<b>Managing State:</b> Preserving state in web applications, Page-Level state, Using cookies to preserve state, View state, ASP.NET session state, Storing objects in session state, Configuring session state, Session tracking, Application state.	5
8	<b>Web Services:</b> XML web services, WSDL, SOAP, UDDI, Creating an XML web service with visual studio, Designing XML web services, Publishing and consuming web services.	4

Unit No.	Topics	Teaching Hours
9	<b>Advanced concepts of .NET:</b> Introduction to WCF, Hosting and calling WCF services, Introduction to WPF, Silver light.	4
<b>Total</b>		<b>45</b>

**List of References:**

1. Christian Nagel, "*Professional C#.Net*", Wrox Publication .
2. Matthew Macdonald and Robert Standefer, "*ASP.NET Complete Reference*", TataMcGrawHills.
3. Vijay Mukhi, "*C# The Basics*", BPB Publications .
4. Nimit Joshi, "*Programming ASP.NET MVC 5*", C# Corner.

**Course Outcomes (COs):**

At the end of this course students will be able to ...

1. Evaluate C# and the .NET framework namespace contents.
2. Develop the console and GUI applications using C# .Net.
3. Set up various navigation techniques for integrating web pages within the site.
4. Create the dynamic web page using ASP.NET Controls which interact with databases.
5. Manage cookies and sessions as state management techniques.
6. Explain advanced concepts related to Web Services, WCF and WPF in project development.