

Course Name: Certificate in Programming Excellence through ASP .NET

Eligibility: Graduation with One year Diploma in Computers or 3 years Diploma in Comp Sci. with knowledge of VB.NET Programming or BCA/B.Sc (CS/IT)

Duration: 3 months, 125 hrs

Fee: 5000/-

Lateral Entry: Not Available

Objective:

- To develop awareness, capability and confidence right from the beginning in the participant and to take up independent assignment in computer field using ASP.NET technology and to work as Web Developer.
- To provide the practical and theoretical knowledge in .NET programming language.
- To develop professional with the concept and technique in ASP. NET
- To make professional in ASP.NET programming

SUBJECT CODE	SUBJECT	LEC	PRA	TOTAL Dur.	TOTAL MARKS
B05-01	Introduction to Microsoft .NET	12	2	14	100
	Exploring Visual Studio .NET	23	28	51	
B05-02	ASP .NET using VB .NET	15	25	31	100
B05-03	Development of Web Application using database	----	20	20	100
	TOTAL	50	75	125	300

DETAILED SYLLABUS

Subject Code	Subject	Syllabus	Theo.	Prac.
B05-01	Introduction to Microsoft .NET	<p>Introducing .NET: A Brief History of Windows Development, Components of a .NET Application, Migrating Existing Applications</p> <p>.NET, ASP.NET, and Distributed Application Development: The .NET Framework (What .NET Is, Web Services, .NET Framework Drilldown); Active Server Pages(ASP.NET Page Basics, Server Control Syntax, Code Basics, ASP.NET Page Life Cycle, Input Validation, Web Services, Improved ASP.NET page, Development, Improved ASP.NET Deployment, XML Configuration File, Security Infrastructure, Improved ASP.NET Availability and Performance); Distributed Application Architecture: Architecture and Design(The Core Of Distributed Applications, A Functional Overview Of Distributed Application, Designing Distributed Applications, Fundamental Application Boundaries: Presentation, Logic, and Data Services, Coupling, Multitiered Design, Local or Distributed?, Design Constraints, Design Goals).</p> <p>The .NET Standards: Web Standards, Web Services Standards, Language and Infrastructure Standards</p> <p>Visual Studio .NET: .NET and Visual Studio .NET, The Development Environment, Building a .NET Project</p> <p>Applications: The .NET Paradigms: Building Distributed .NET Applications, Data Access Layer, Business Object Layer, Web User Interface with ASP.NET, Desktop User Interface with Windows Forms</p> <p>.NET Exposed: .NET Framework, Deployment and Version Compatibility</p>	01 03 02 02 03 01	 01 01
	Exploring Visual Studio .NET	<p>Guided Tour of Visual Studio.NET: Creating Your First VS.NET Application, Investigating VS.NET Windows, Debugging in VS.NET, Using VS.NET Help</p> <p>Request Objects: Forms (Using a TextBox in a Form, Using a <SELECT> Tag in a Form, Using a Check Box in a Form, Using Radio Buttons in a Form, Using a TextArea in a Form, Using the Form Collection); Query String(Using Parameters, Parameters Spaces, QueryString Collections); Server Variables; Cookies; Other Request Objects.</p> <p>Response, Application, and Session Objects: Write; Redirect; Cookies; Write File; The Application Object (Application Event Handlers, Using Event Handlers to Determine, How Long Application Live, Using Application Variables, Storing Global Information, Using the Lock and Unlock Methods, Using Application Object Collections: Contents and StaticObjects); The Session Object (Session Event Handlers, Using Event Handlers to Determine,</p>	 03 02	01 01 02

	<p>How Long Sessions Live, Using Session Variables).</p> <p>ASP.NET Controls: Intrinsic Control (Using the asp:TextEdit Control, Using the asp: CheckBox Control, Using the asp: RadioButton Control); List Controls (Using the Repeater Control, Using the DataList Control); Rich Controls(Calendar Control); Validation Controls.</p> <p>ADO.NET in ASP.NET: Overview; ADO.NET Name Spaces; Managed Providers(Connection, Command, DataReader, Parameter Binding with SQL Commands, Stored Procedures and Parameter Binding); The DataSet Object(DataAdapter, DataTable, DataViews, DataRelations); Error Handling; Database Transactions; Concurrent Database Access; ADO.NET Performance.</p> <p>Data Bound Controls: Repeater Control; DataList Control; DataGrid Control; The Data History Application.</p> <p>WebForms: Classic HTML and Server-Side Controls; HTML Controls; Web Controls; Intrinsic Web Controls, Intrinsic Web Controls; Buttons and Links; WebForms Examples(Shakespeare Program, Guessing Game, Temperature Calculator).</p> <p>Web Services: What is a Web Service? ; What Is SOAP? ; SOAP Packages; Why Is SOAP Important for Web Services? ; Why are Web Services Useful? ; Real World Scenarios for Using Web Services; Writing a Web Service; A Health tip Web Service; A Credit Card Validator Service; Consuming a Web Service.</p> <p>State Management: Using Application and Session Variables (Resource that application Variables Consume, Concurrency and Synchronization, Scalability Implications of Using Application Variables, Lifecycle Implication Of Using Application Variables) ; Hidden Fields; Synchronization; Global.asax; Session Information; Demo Application (Viewing the Session Variables, Viewing the Application Variables, Adding a Session Variables, Setting Application Variables).</p> <p>Investigating VB.NET Language Changes: Investigating Major Language Changes, Working with Classes, Object-Oriented Additions to VB.NET, Overloading, Overriding, Inheritance, and other New Techniques, Working Through a Simple, Object-Based Application</p> <p>Investigating .NET System Classes: Introduction to Namespaces, What's in the .NET System Class Libraries?, Investigating Some Example Classes Creating Windows Applications with Windows Forms: Creating an MDI Application in VS.NET, Working with Menus, Using Visual Inheritance, Adding New Controls, Working with Forms Programmatically, Creating Dialog Forms</p>	02	02
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		<p>Handling Errors in VB.NET: Introduction to Structured Exception Handling, Catching Errors using Try/Catch, Handling Invariant Code Using Finally, Creating Your Own Exception Classes, System Exception Handling and debugging;</p>	01	02
		<p>Introduction to ADO.NET: What's Wrong with ADO?, Filling a DataTable Manually , Connecting to Data, Reading Data using the DataReader Object, Manipulating Data with the DataAdapter and DataSet Objects , Using DataRelation Objects to Relate Data, Updating Data and the CommandBuilder Object, ADO.NET and XML</p>	02	02
		<p>Getting Started with ASP.NET: Classic ASP vs. ASP.NET , Introduction to Web Forms , Controlling Page Layout , Targeting a Browser , Investigating Server Controls , Validating Data with Validation Controls , Data Binding with ASP.NET</p>	01	02
		<p>Creating Web Services: Introduction to Web Services , Creating a Simple Web Service , Investigating the WSDL, Creating Web Service Consumers , Handling Asynchronous vs. Synchronous Web Service Calls</p>	01	01
		<p>Creating Console Applications and Windows Services in .NET: Investigating Console Applications , Creating a Console Application , Debugging Console Applications , Investigating Windows Services , Creating a Simple Windows Service , Debugging Windows Services</p>	01	01
			35	30
B05-02	ASP .NET using VB .NET	<p>Introduction to ASP.NET: A Review of Classic ASP , ASP.NET Web Applications , Rendering HTML with Server Controls , Using ASP.NET to Deliver XML Web Services</p>	02	01
		<p>Working with Web Forms Controls: Introduction to Web Forms Controls , Simple Input Controls , HyperLinks and Button Controls , List Controls</p>	01	02
		<p>Validating User Input: Overview of ASP.NET Validation Controls , Using the Simple Validators, Using the Complex Validators, Summarizing Results with the Validation Summary Control</p>	01	03
		<p>Using Rich Server Controls: Introduction to Rich Controls , The Calendar Control , The AdRotator Control , The XML Control</p>	01	03
		<p>Accessing Data with ADO.NET: Overview of ADO.NET , Connecting to Data , Executing Commands , Working with Data , Choosing an ADO.NET Provider</p>	01	03
		<p>Using the DataList and Repeater Controls: Overview of List-Bound Controls , Creating a Repeater Control ,</p>	01	03

		Creating a DataList Control		
		Working with the DataGrid Control: Introduction to the DataGrid , Setting Up the DataGrid , Using Advanced DataGrid Features , Adding Advanced Features	01	03
		Managing Data with ADO.NET DataSets: The Role of DataSets in ADO.NET , Using DataSets in ASP.NET , Saving DataSets in Session State , Using DataTable Constraints and DataSet DataRelations , Using DataSets with DataAdapters to Modify Data , The Transactional Model in DataSets	03	03
		Creating XML Web Services: The Motivation for XML Web Services , Creating an XML Web Service with Visual Studio .NET , Designing XML Web Services	02	02
		Consuming XML Web Services: Creating Web Services Clients , HTTP Clients , Creating .NET Consumers , Web Services and Legacy Clients , Discovering Web Services Using UDDI	02	02
			15	25
B05-03		Development of Web Application using database	---	20
		TOTAL	50	75

Ref. : Using ASP.net by Richard Leinecker (Pearson Education)