



SYLLABUS

Course Title	Web Programming using ASP.NET	
Course Code	BCA611	
Course Credit	Theory(Hrs)	: 4
	Practical(Hrs)	: 4
	Tutorial(Hrs)	: 0
	Credits	: 6
Course Objectives		
<p>The objectives of the course are:</p> <ul style="list-style-type: none"> • To understand the features & framework of .NET • To understand the core set of web design and development features of Visual Studio for ASP.NET • To develop web application using visual studio web development environment • To understand the ASP.NET objects & security • To work with connected and disconnected architecture of ADO.NET and can store and retrieve data easily from database 		
Detailed Syllabus		
Sr. No.	Name of chapter & details	Hours Allotted
Section – I		
1	Web Programming Concept and ASP.NET Architecture Understanding of Web Server and Web Browser, Brief about HTTP Protocol, HTTP Request & Response structure. ASP.NET and .NET Framework, The Common Language Runtime, The Framework Class Library	06

2	Introduction and Designing of ASP.NET Applications Application Web Servers, Installation of IIS server, IDE of Visual Studio, Types of Files in Asp.NET, ASP.NET Page Architecture, Web forms, Compile Code – Code behind and Inline coding, ASP.NET page directives, creating a multiform web project., Types of controls in Asp.NET - Standard control, HTML controls, Navigation controls, Rich Controls, Login Controls	10
3	Validation Controls Basic of Validation, Client Side Validation, Server Side Validation Types of Validation Controls - RequiredFieldValidator, RangeValidator, CompareValidator, RegularExpressionValidator, CustomValidator and ValidationSummary Control	03
4	State Management Basics of State Management, Importance of State Management in Asp.Net, Overview of Client Side State Management and Server Side State Management Various State Management Techniques - ViewState, QueryString, Cookie, Session State, Application State	04
5	Creating User Control Creating a UserControl. Adding a Usercontrol to the WebForm, Register Directive, Loading UserControl dynamically	03
Section – II		
6	ADO.NET and XML Architecture of ADO.NET, Connected and Disconnected Database, Create Connection using ADO.NET Object, Model, Connection Class, Command Class, DataAdapter Class, Dataset Class, DataReader Class, Display data on web page using Data Bound Controls, Binding standard web server controls, Writing dataset to XML file, Filling dataset from XML file	10
7	Master Page and Theme Requirement of Master Page, Significance of ContentPlaceholder Tag in MasterPage and Content Tag in WebForm. Implementing master page, Load and LoadComplete events of the Page and MasterPage classes Creating Theme, Applying Theme, Applying Stylesheet.	08
8	Configuration and Deployment of ASP.NET Application Overview of Configuration, Common Configuration Settings, Connecting Strings, Authentication, Authorization. Methods of Deploying Web Application, Deploying & Publishing Website.	04

9	<p>Working with AJAX.NET & Crystal Report Architecture of AJAX.NET, Working with AJAX.NET, Using AJAX.NET Controls. Overview to Crystal Reports, Creating Crystal Reports with wizards, Integrating with Web Applications, Customizing the Report Viewer, Adding a Database or Table to a Report</p>	04
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Instructional Method and Pedagogy:

- Lectures will be conducted on the basis of Classroom Response Systems with the use of multimedia projector and black board.
- Assignments based on course contents will be given at the end of each unit/topic and will be evaluated at regular interval.
- Experiments will be based on the practical curriculum and will be evaluated at regular interval.
- Students will be guided to develop the real-world applications with the advanced concepts of application development.

Course Learning Outcomes:

On the completion of the course, students will be able to:

- **Understand** the Microsoft .NET Framework and ASP.NET page structure
- **Design** web application with variety of controls
- **Access** the data using inbuilt data access tools
- **Use** Microsoft ADO.NET to access data in web Application
- **Configure** and **deploy** Web Application
- **Develop** secured web application

Text books:

- Title : ASP.NET Unleashed , Sams publication
 Author(s) : Stephen Walther, Kevin Hoffman, Nate Dudek
- Title : Professional ASP .NET 4.0, Wrox
 Author(s) : Alex Homer, Dave Sussman, Rob Howard

Reference Books:

- Title : Beginning ASP.NET 2.0 in C# 2005 From Novice to Professional, Apress
 Author(s) : Matthew
- Title : ASP.NET BLACK BOOK, Paraglyph Press, 2006
 Author(s) : Charul Shukla
- Title : Mastering ASP.NET with C#, SYBEX Publication
 Author(s) : A. Russell Jones
- Title: Teach yourself ASP.NET In 21 days – 2nd Edition, Sams pub.
 Author(s) : Chris Payne

Additional Resources

- www.dotnetspider.com
- www.stackoverflow.com
- www.tutorialspoint.com/asp.net/index.htm
- www.codeproject.com
- msdn.microsoft.com
- www.w3schools.com/aspnet/