



SYLLABUS

Course Title	Web Application Development using ASP.NET	
Course Code	MCAL312	
Course Credit	Theory(Hrs)	: 3
	Practical(Hrs)	: 4
	Tutorial (Hrs)	: 0
	Credits	: 5
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 Concepts Understanding of Web Server and Web Browser, Brief about HTTP Protocol, HTTP Request & Response structure, IIS Web server configuration Introduction to ASP.NET ASP.NET and .NET Framework, The Common Language Runtime, The Framework Class Library	05

2	Designing Web Application The Structure of ASP.NET Page, Creating and Running Application, AutoPostBack concept, Controls –Standard control, HTML controls, Navigation controls, Rich Controls, Login Controls	10
3	Validation and Exception Basics and types of Validation, Different Validation Controls, Validation Groups, Exception Handling in web application	02
4	Creating User Control Creating a User Control. Adding a User Control to the WebForm, Register – Directive, Loading User Control Dynamically, Usage of Page.ClientScript, RegisterClientScriptBlock Method	02
5	Web Parts Control Introduction, WebParts Control, WebPartManager, WebPartZone, PageCatalogPart, Creating Webparts page	02
Section – II		
6	Designing using Master Page & Themes Why Master Pages, Significance of ContentPlaceHolder Tag in MasterPage and Content Tag in WebForm. How to Access master pages, Load and LoadComplete events of the Page and MasterPage classes. Creating Theme, Applying Theme, Applying Stylesheet	03
7	State Management & Configuration Preserving State in Web Applications, Using Cookies to Preserve State, ASP.NET Session State Application State Configuration Overview, Importance of WEB.CONFIG, Common Configuration Settings, Connecting Strings, Authentication, Authorization, Managing Application Settings, Handling Errors / Custom Errors, ConfigSource attribute	03
8	Performing Data Access in ASP.NET Overview and 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 for web server controls, Writing dataset to XML file, Filling dataset from XML file	05
9	Working with XML, AJAX.NET & Crystal Report Basics of XML, Create XML Documents, XmlReader and XmlWriter, XmlDataSource Control, Architecture of AJAX.NET, Working with AJAX Pro, Using AJAX.NET Controls , Overview to Crystal Reports, Creating	05

	Crystal Reports with wizards, Integrating with Web Applications, Customizing the Report Viewer, Adding a Database or Table to a Report	
10	Advanced Concepts Basics of Web services, Creating Web Service, Consume and Deployment of a Web Service, Introduction to MVC Application, Folder structure of MVC Application, Working with Model, View and Controller Introduction to WPF, WCF, Silverlight	05

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 2.0, 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/