

Kadi Sarva Vishwavidyalaya, Gandhinagar

MCA Semester I

MCA-12: Web Development Technology

Rationale:

- To develop basic knowledge of designing and developing client server architecture based web applications using Asp.Net with C#
- This course covers advanced topic in ASP.NET, so that student can develop any web based projects for the industry.

Prerequisites: HTML, Client-side scripting, Basic Asp.Net

Learning Outcome:

This Course Covers learning and implementation of -

- Web Application Architecture
- Server Controls, HTML Controls & CSS
- Master pages & Themes
- Working With AJAX
- Working With Database
- Securing Web Application
- ASP.NET Web Services

Teaching and Evaluation Scheme: The objective of evaluation is to evaluate the students throughout the semester for better performance. Students are evaluated on the basis of continuous evaluation system both in theory and practical classes based on various parameters like term work, class participation, practical and theory assignments, presentation, class test, Regular Attendance, etc.

Sub Total Credit	Teaching scheme		Examination scheme				
	(per week)		MID	CEC	External		Total Marks
	Th	Pr	Th	Th	Th.	Pr.	
5	3	4	25	25	50	50	150

Course Contents:

Unit 1: Introduction to Client Server Architecture & Asp.Net Basics

(20%)

Introduction to .NET Framework: NET framework, Namespaces, Assemblies.

An Introduction to ASP.NET: Understanding HTML, A First Look at ASP.NET Markup

A Tour of the IDE: The Main Development Area, Informational Windows

Building an ASP.NET Web Site: Creating Web Sites, Working with Files in Your Web Site, Working with Web Forms.

Designing Your Web Pages: An Introduction to CSS, Working with CSS in Visual Web Developer

Unit 2: Working with ASP.NET Controls & Programming (20%)

Introduction to Server Controls: A Closer Look at ASP.NET Server Controls, Types of Controls, ASP.NET State Engine

Introduction to Programming: Data Types and Variables, Statements, Organizing Code.

Creating Consistent Looking Web Sites: Consistent Page Layout with Master Pages, Using a Centralized Base Page, Themes, Skins

Unit 3: Advanced Controls (20%)

Navigation: Using the Navigation Controls

User Controls: Introduction to User Controls, Adding Logic to Your User Controls,

Validating User Input: Gathering Data from the User, Processing Data at the Server,

ASP.NET AJAX: Using ASP.NET AJAX in Your Projects

Unit 4: Introduction to Databases (20%)

Databases: Using SQL to Work with Database Data, Creating Your Own Tables

Displaying and Updating Data: Data Controls, Data Source and Data-Bound Controls Working Together, Customizing the Appearance of the Data Controls, Updating and Inserting Data

LINQ: Introducing LINQ, Introducing LINQ to SQL

Unit 5: Presenting Data (20%)

Advanced Topics: Formatting Your Controls Using Styles, Handling Events, Caching

Security: Introducing Security, Introducing the Login Controls, Role Manager,

Exception Handling: Basics of Debugging, Tools Support for Debugging **Deploying**

Your Web Site: Preparing Your Web Site for Deployment

Text Book:

- Imar Spaanjaars, Beginning ASP.NET 3.5 In C# and VB, Wrox Publication

Reference Books:

- ASP.NET 4.0 Black Book, Dreamtech Press
- Mastering Visual Basic 2008 – Evangelos Petroutsos, Wiley India.
- ASP.NET Website Programming: Programs - Design – Solution
- ASP.NET in a Nutshell
- Teach Yourself ASP.NET in 24 Hours

Practical Programs:

1. Develop a Registration page using standard controls and validation controls a.
Use of radio button, dropdown and combo box is needed

- b. Validation to be applied in every control
2. Create a Registration page and store the details in the database
3. Create a login page and change password page and update the details in the database
4. Develop an admin page, in which admin can able to a.
 - Add new product details
 - b. Edit product details c.
 - Delete any product
 - d. Display the details in the gridview
5. Display the product details in the gridview
 - a. Gridview should be sorted according to the products b.
 - Paging should be applied in the grisview
 - c. Grid rows should be applied with alterative colors
6. Create a Master page and combine Registration, login, change password and product pages to be included in the master page. User should able to access any page simultaneously.
7. Display a gridview which displays the details from the database and allow gridview to perform edit, delete and insert through the grid.
8. Develop an application to create user profile and allow the user to update the profile.

Once you get the input data from the user, the profile data to be displayed in the correct format for the user to get printout with user image.
9. Create an application form in vb.net to store user's information also validate the information to display the error message for certain criteria like:
 - a. User exceeds max length b.
 - If the field is blank
 - c. User has entered a numeric in place of char/ vice-versa. d. If
 - info is valid it should store the details in the database.
 - e. Users should able to display the list of all users' residing in a particular city in a data grid
 - f. User should also able to edit or to delete a particular user.
10. Implement AJAX control in Asp.Net web application
11. Use LINQ queries to access the database from Asp.Net web application.