C. U. SHAH UNIVERSITY
Wadhwan City

FACULTY OF:-Computer Science
DEPARTMENT OF:-Master of Computer Application
SEMESTER:- V
CODE :- 5CS05MNT1
NAME – ADVANCED ASP & C# .NET PROGRAMMING

Teaching and Evaluation Scheme:-

Subject Code	Name of the Subject	Teaching Scheme (Hours)				Credits	Evaluation Scheme							Total
		Th	Tu	Pr	Total		Theory				Practical (Marks)			
							Sessional Exam		University Exam		Internal		University	
							Marks	Hrs	Marks	Hrs	Pr/Viva	TW	Pr	
5CS05MNT1	ADVANCED ASP & C# .NET PROGRAMMING	4	0	0	4	4	30	1.5	70	3	--	-	--	100

Objectives:

- Gain a thorough understanding of the philosophy and architecture of Web applications using ASP.NET
- Acquire a working knowledge of Web application development using Web Forms and Visual Studio .NET
- Optimize an ASP.NET Web application using configuration, security, and caching
- Access databases using ASP.NET and ADO.NET

Technical Prerequisites:

- knowledge of basic object-oriented programming and the .NET Framework

Course Outline:

SNo.	Course Contents	Number of Hours
1	**Microsoft.Net Introduction**, Features and Advantages Microsoft.Net Framework and Architecture MS .Net Platform Microsoft .Net and Windows DNA, Microsoft .Net Architecture Hierarchy Features of Microsoft .Net Platform Multilanguage development, Platform and Processor independent, Automatic Memory Management, Easy Deployment, Distributed Architecture, Interoperability with Unmanaged code, Security, Performance and Scalability Component of the .Net Architecture MS .Net Runtime, Managed/Unmanaged code, Intermediate language, Common type System, MS .Net Base Class Library (BCL), Assemblies, Metadata, Assemblies and Modules, Assembly Cache, Reflection, Just In Time Compilation, Garbage Collation	8

2	**Introduction to C# .Net**	18

Introduction to C# .Net

C# Program Console Application Development
Compiling and Execution, Defining a Class, Declaring the 'main()' Method, Organizing Libraries with Namespace, Using the 'using' keyword, Adding Comments

C# Data Types
Values Types- Primitive Data Type, Reference Type

C# Control Structure
Using the if statement, Using the if-else statement, Using the switch-case statement, Using the for statement, Using the while statement, Using the do-while statement, Using the break statement, Using the continue statement, Using the goto statement, Using the return statement

C# Properties and Indexers
Using Properties, Get Accessor, Set Accessor
Accessing List with Indexers

Delegates and Events in C#
Delegates , Single Cast and Multicast, Events

Exception Handling in C#
Using the try block, Using the catch block, Using the finally block, Using the throw statement
Inheritance, Polymorphism and Interfaces in C#
Structures in C#
Operator Overloading in C#
Using Generics in C#

3	**Web Application Development with ASP .Net**	12

Web Application Development with ASP .Net

Introduction to the ASP .Net,ASP .Net Controls, ASP .Net Pages, ASP .Net Framework, Global.asax Page

Standard Controls
Displaying Information, Accessing User Input, Submitting Forms Data
Displaying Images, Using the Panel Control, Using the Hyper Link Control

Validation Controls
Overview of the Validation Controls, RequiredFieldValidator Control
RangeValidator Control , CompareValidator Control, RegularExpressionVelidator Control, CustomValidator Control
ValidationSummary Control, Custom Validation Control

Rich Controls
Accepting File Uploads, Displaying a Calendar, Displaying Advertisements
Displaying Different Page Views, Displaying Wizard

Designing ASP .Net Websites
Designing Websites with Master Pages
Creating Master Pages, Modifying Master Page Content
Loading Master Pages Dynamically
Designing Websites with Themes
Creating Themes, Adding Skins to Themes
Adding Cascading Style Sheets to Themes
Creating Global Themes
Applying Themes Dynamically
Creating Custom Controls with User Controls

	Creating User Controls AJAX and User Controls Dynamically Loading User Controls	
4	**Database Application Development with ADO .Net** **Introduction to ADO .Net** ADO .Net Architecture Understanding the Connection Object Building the Connection String Understanding the Command Object Understanding DataReaders Understanding DataSets and DataAdapters DataTable, DataColumn, DataRow Differences between DataReaders model and DataSet model Understanding the DataView Object Working with System.Data.OleDb Using DataReaders, Using DataSets **Performing Data Access in ASP .Net** Overview of Data Access, Using SqlDataSource Control, Using different List Controls, Using the GridView Control Using the DetailsView Control, Using the FormView Control Using the Repeater Control, Using the DataList Control **Site Navigation** Site Maps, SiteMapPath Control, Menu Control, Tree View Control **Security in ASP .Net** Using the Login Control, Using the CreateUserWizard Control Using the LoginStatus Control, Using the LoginName Control Using the ChangePassword Control, Using the PasswordRecovery Control Using the LoginView Control	10

Learning Outcomes:
- The course is for application developers and architects who wish to become competent at designing and implementing Web applications in a .NET environment.
- After completion of this course students are able to creating & manipulating dynamic web application.

Teaching & Learning Methodology:
- Involve the learners during learning. Having someone demonstrate a skill, and giving an explanation
- Including aids such as check lists that learners can use during their practice of skills and competences
- Using multimedia
- The institute provides an excellent academic environment with accent on self-learning. The teaching and learning methodologies follow a rigorous regime that involves intensive and extensive working on challenging academic assignments.

Books Recommended:

- Inside C#, **Tom Archer**, Microsoft Press
- Microsoft ADO .Net,**Rebecca M. Riordan**, Microsoft Press
- ASP .Net Unleashed, Sams Publication
- Microsoft .Net XML Web Services Step by Step, **Adam Freeman**