Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Seminar	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓		✓	✓
CO 3	✓	✓		✓
CO 4	✓		✓	✓

6. VISUAL PROGRAMMING

Discipline	Computer Science
Course Code	UK3DSCCSC205
Course Title	VISUAL PROGRAMMING
Type of Course	**DSC**

Semester	III				
Academic Level	2				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	3 hours	-	2 hours	5 hours
Pre-requisites	Basic programming skills are desirable.				
Course Summary	This course aims to make the students capable of developing a web site using client server technology ASP.NET. Through this course, students will learn the basic concepts of client-server technology like CLR, web pages and its different web controls, validation controls and ADO.NET.				

Detailed Syllabus:

Module	Unit	Content	Hrs (L+P)
I		**Introduction to ASP.NET**	**15**
	1	The .Net Platform and the Web- The Pathway to Web Application, The Web Client/Server Model, Components of ASP.NET and the .NET framework, Overview of IIS, Overview of ASP.NET, The .NET Common Language Runtime, Language Independence in the .NET framework. Working with ASP.NET- The Features of ASP.NET, The Anatomy of ASP.NET Pages, Introducing Web Forms, Visual Studio IDE Basics, Code-Behind feature. Application Configuration- Overview of Global.asax file and Web.config file.	
II		**Web Controls**	**15**
	2	Introduction to server controls- how to work with button controls, text boxes, labels, check boxes, radio button, list controls and other web server controls like image, image map, hyperlink, file upload, and calendar controls, properties of each control of ASP.NET. ASP.NET Page Directives- @Page, @Control, @Import, @Register, @Assembly, @OutputCache	
III		**Validation and Data Controls**	**15**
	3	Introduction to validation controls- basic validation controls- Required Field Validator Control, Compare Validator Control, Range Validator	

		Control, Regular Expression Validator Control, Custom Validator Control, properties of each validation control of ASP.NET. Introduction to Data List Controls- Repeater Control and DataList Control, Introduction of GridView, Introduction of FormView and Detail View Controls Authoring a User Control- Login Control, LoginView Control, LoginStatus- Control, LoginName Control, PasswordRecovery Control	
IV		**State Management and ADO.NET**	**15**
	4	How to manage state – how to use view state, session state and application state. ASP.NET Intrinsic Objects- The HttpRequest Object, The HttpResponse Object, The HttpApplicationState Object, The HttpSessionState Object Introduction to ADO.NET- ADO.NET Programming Objects and Architecture, Displaying Database Data, Working with The Data Set and Data Table Objects	
V		**Flexi Module: Not included for End Semester Exams**	**15**
	5	Introduction to authentication, how to set up authentication and authorization, how to configure ASP.NET applications, how to deploy an ASP.NET application.	

Core Textbooks
1. Matt J. Crouch, "ASP.NET and VB.NET Web Programming", Pearson

Reference Books
1. Gerg Buczek, "ASP.NET Developer's Guide" Publisher: McGraw Hill
2. Imar Spaanjaars, "Beginning ASP.NET 4.0 in C# and VB", Wiley publishers.
3. Anne Boehm, Murach's ASP.NET 4 web programming with VB 2010, Shroffs publishers and Distributors Pvt. Ltd.

Web Resources
1. https://www.javatpoint.com/asp-net-tutorial
2. https://learn.microsoft.com/en-us/aspnet/tutorials
3. https://www.tutorialspoint.com/asp.net/index.htm

LAB EXERCISES

The laboratory work will consist of 10-15 experiments.

Part A (1 to 10 programs)

● Programs to demonstrate and use different web server controls in ASP.NET.
● Program to demonstrate working with forms.
● Programs to demonstrate and use of different Validation controls.
● Develop a web form for Email Registration

Part B (11 to 15 programs)

- Program to demonstrate Session Management.
- Design a form that allows the user to enter some simple data and store it in db.
- Design a form to perform delete and update operations in db.
- Design a form to retrieve data from a table and use GridView control.
- Programs to demonstrate Login Control.

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Discuss about the various features of visual studio tools.	Ap	PSO-1,2,3
CO-2	Illustrate the usage of different controls in web development.	Ap	PSO-1,2,3
CO-3	Build web pages using validation and data controls in ASP.NET	Ap	PSO-1,2,3
CO-4	Develop dynamic websites using visual studio IDE.	Ap	PSO-1,2,3

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: VISUAL PROGRAMMING

Credits: 3:0:1 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Discuss about the various features of visual studio tools.	PO-1,2,6,7 PSO-1,2,3	Ap	F, C, P	L	P
2	Illustrate the usage of different controls in web	PO-1,2,6,7 PSO-1,2,3	Ap	F, C, P	L	P

		development.						
3	Build web pages using validation and data controls in ASP.NET	PO-1,2,6,7 PSO-1,2,3	Ap	F, C, P	L	P
4	Develop dynamic websites using visual studio IDE.	PO-1,2,6,7 PSO-1,2,3	Ap	F, C, P	L	P

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO 1	1	1	-	-	-	1	1	-	3	1	2	-
CO 2	2	2	-	-	-	1	1	-	3	2	2	-
CO 3	2	2	-	-	-	2	2	-	3	2	2	-
CO 4	2	2	-	-	-	3	3	-	3	2	2	-

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics: