Lovely Professional University, Punjab

Course Code	Course Title	Course Planner	Lectures	Tutorials	Practicals	Credits
INT402	MODERN WEB PROGRAMMING TOOLS AND TECHNIQUES	19340::Amandeep Kaur Gahier	3	0	0	3
Course Weightage	ATT: 5 CA: 20 MTT: 25 ETT: 50	**Exam Category: 55: Mid Term Exam: All Subjective – End Term Exam: All Subjective**				
Course Orientation	KNOWLEDGE ENHANCEMENT, PLACEMENT EXAMINATION					

	TextBooks (T)		
Sr No	**Title**	**Author**	**Publisher Name**
T-1	ASP.NET 4.0 BLACK BOOK	KOGENT LEARNING SOLUTIONS INC.	DREAMTECH PRESS

	Reference Books (R)		
Sr No	**Title**	**Author**	**Publisher Name**
R-1	C# 4.0 UNLEASHED	BART DE SMET	PEARSON

Other Reading (OR)	
Sr No	**Journals articles as Compulsary reading (specific articles, complete reference)**
OR-1	www.webdevelopersjournal.com/ ,
OR-2	dotnet.sys-con.com/ ,
OR-3	http://www.asp.net/web-forms/open-source ,

Relevant Websites (RW)		
Sr No	**(Web address) (only if relevant to the course)**	**Salient Features**
RW-1	http://www.edinteractive.co.uk/article/?id=4	Static Vs Dynamic websites
RW-2	http://www.w3schools.com/html/	Introduction to HTML
RW-3	http://www.w3schools.com/js/default.asp	JavaScript Basics
RW-4	http://www.w3schools.com/aspnet/aspnet_intro.asp	ASP, ASP.NET, Microsoft .NET Framework
RW-5	http://www.php.net/	Introduction to PHP
RW-6	http://technet.microsoft.com/en-us/library/cc753734(v=ws.10).aspx	IIS 7.0
RW-7	http://support.microsoft.com/kb/303247	ASP.NET Code-Behind Model Overview
RW-8	http://www.dotnetspider.com/tutorials/AspNet-Tutorial-35.aspx	ASP.NET Request Object

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RW-9	http://www.dotnetspider.com/tutorials/AspNet-Tutorial-36.aspx	ASP.NET Response Object
RW-10	http://www.dotnetspider.com/tutorials/AspNet-Tutorial-29.aspx	ASP.NET Session Object
RW-11	http://msdn.microsoft.com/en-us/library/aa479007.aspx	ASP.NET Page Object Model
RW-12	http://msdn.microsoft.com/en-us/library/ms178194.aspx	Introduction to Cookies
RW-13	http://www.beansoftware.com/ASP.NET-Tutorials/Using- Crystal-Reports.aspx	Crystal Reports
RW-14	http://www.asp.net/security/tutorials/security-basics-and-aspnet- support-vb	Security with ASP.Net
RW-15	http://www.codersource.net/asp-net/asp-net-advanced/aspnet- web-configconfiguration-file.aspx	Web Configuration File
RW-16	http://ajax.net-tutorials.com/controls/updatepanel-control/	Introduction to Ajax
RW-17	http://www.4guysfromrolla.com/articles/080206-1.aspx	Sending Email in ASP.NET
RW-18	http://msdn.microsoft.com/en-us/library/ms178581.aspx	Introduction to Session
RW-19	http://www.howtogeek.com/105320/how-to-use-firefoxs-web-developer-tools/	How To Use Firefox Web Developer Tools

Software/Equipments/Databases		
Sr No	**(S/E/D) (only if relevant to the course)**	**Salient Features**
SW-1	Visual Studio 2012	IDE for .Net based development

LTP week distribution: (LTP Weeks)	
Weeks before MTE	7
Weeks After MTE	7
Spill Over (Lecture)	7

Detailed Plan For Lectures

Week Number	Lecture Number	Broad Topic(Sub Topic)	Chapters/Sections of Text/reference books	Other Readings, Relevant Websites, Audio Visual Aids, software and Virtual Labs	Lecture Description	Learning Outcomes	Pedagogical Tool Demonstration/ Case Study / Images / animation / ppt etc. Planned	Live Examples

Week 1	Lecture 1	Server Side Scripting(Static and Dynamic Web Sites. HTML: Tags use)	T-1	RW-1 RW-2 RW-3 SW-1	L1: (Zero Lecture) Introduction and description of ASP.Net. L2: Introduction to Static and Dynamic website.	Student will understand the concepts of ASP.Net, difference between Static and Dynamic websites and the purpose of HTML in Website. development	Live demo using text editor and web browser	Feedback page of the UMS can be made using HTML controls
		Server Side Scripting (Scripting Languages: JavaScript, JScirpt, VBScript)	T-1	RW-2 RW-3	L1: Zero Lecture Introduction and description of ASP.Net.Introduction to Static and Dynamic website	Student will understand basics of Scripting language.	Live demo using text editor and web browser.	Feedback page of the UMS can be made using JavaScript events and confirm boxes.
	Lecture 2	Server Side Scripting(Static and Dynamic Web Sites. HTML: Tags use)	T-1	RW-1 RW-2 RW-3 SW-1	L1: (Zero Lecture) Introduction and description of ASP.Net. L2: Introduction to Static and Dynamic website.	Student will understand the concepts of ASP.Net, difference between Static and Dynamic websites and the purpose of HTML in Website. development	Live demo using text editor and web browser	Feedback page of the UMS can be made using HTML controls
		Server Side Scripting (Scripting Languages: JavaScript, JScirpt, VBScript)	T-1	RW-2 RW-3	L1: Zero Lecture Introduction and description of ASP.Net.Introduction to Static and Dynamic website	Student will understand basics of Scripting language.	Live demo using text editor and web browser.	Feedback page of the UMS can be made using JavaScript events and confirm boxes.
	Lecture 3	Server Side Scripting (Browser Developer tool for client side scripting)	T-1	RW-19	Learn How to Use Developer tools of the Various Web Browsers	To know the purpose and how to use the developer tools in Browsers.	Live Demonstration on the web browser	Feedback page of the UMS can be made using HTML controls
Week 2	Lecture 4	Introduction to Web Programming and Tools (Overview of ASP, ASP.NET, JSP, PHP)	T-1	RW-4 RW-5	Server Side Programming Languages and Learn about Microsoft .Net framework	Understanding the Server side scripting and .Net framework	Discussion and comparison with previous Versions	
		Introduction to Web Programming and Tools (ASP.NET v2.0 Vs 3.5 and 4.0, ASP.net in .NET Framework)	T-1	RW-4 RW-5	Server Side Programming Languages and Learn about Microsoft .Net framework	Understanding the Server side scripting and .Net framework	Discussion and comparison with previous Versions	

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Week 2	Lecture 5	Introduction to Web Programming and Tools (Setting up environment for ASP.NET,Running with IIS.)	T-1	RW-4	Running IIS with ASP.Net	To understand how to set the environment for the ASP.Net and IIS	Demonstration using IIS and Visual Studio.	Hosting of HTML web pages developed on IIS
		Introduction to Web Programming and Tools (Difference Between framework and architecture)	T-1	RW-4	Running IIS with ASP.Net	To understand how to set the environment for the ASP.Net and IIS	Demonstration using IIS and Visual Studio.	Hosting of HTML web pages developed on IIS
	Lecture 6	Web Forms(Web Forms Vs. Normal Forms)	T-1	OR-3	Types of Forms in ASP.Net	Students will learn to make run web code at server side	Demonstration using Visual Studio IDE	Difference can be demonstrated using feedback form/ Datetime of the server and system using javascript and C#
Week 3	Lecture 7	Web Forms(Code behind Model of ASP.NET)	T-1	OR-3 RW-7	2 Tier and 3 Tier Application models in ASP.Net	To understand the code behind model and Meaning of properties, methods and events.	Demonstration using Visual Studio	Any Simple web page of feedback or contact us will help in demonstration of the concept.
		Web Forms(Difference between Properties methods and events)	T-1	RW-11	2 Tier and 3 Tier Application models in ASP.Net	To understand the code behind model and Meaning of properties, methods and events.	Demonstration using Visual Studio	Any Simple web page of feedback or contact us will help in demonstration of the concept.
	Lecture 8	Web Forms(HTML Controls and Web Server Controls)	T-1		Types of controls and their common properties	Drag and Drop options and working with Visual Studio GUI Environment	Demonstration using Visual Studio	Making the student admission form.
	Lecture 9	Web Forms(Page Execution Life Cycle)	T-1		Concepts of Life Cycle of ASP.net and Allotment of Live Project	Understanding the concept of Page Execution life cycle.	Demo Using Visual Studio	Server side date time and page loading example.
		Web Forms(Viewstate and Postback)	T-1	RW-12	Concepts Discussed for Postback, Viewstate .	Understanding concept of Postback and Viewstate.	Demo Using Visual Studio.	Server side date time and page loading example.

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Week	Lecture	Topic							
Week 3	Lecture 9	Web Forms(Exception Handling)	T-1			Handling the Exceptions.	Students will understand the concept and will able to implement Exceptional Handling.	Demo Using Visual Studio	Server side date time and page loading example.
Week 4	Lecture 10	Web Forms(Objects in ASP.NET: Request, Session, Response, Page)	T-1			Learn Various Objects in ASP.Net	Students will earn to work with various objects in ASP.Net	Demonstration using Visual Studio IDE	Login Page showing the use of session and response
	Lecture 11	Validation Controls, Emails and Advertisement(Meaning & types of Validation Controls)	T-1			Role and purpose of Validation controls.	To understand the role and purpose of Validation controls.	Demo using Visual Studio	Student admission form showing Validations.
	Lecture 12	Validation Controls, Emails and Advertisement(Emails in ASP.NET: Normal Emails and HTML Formatted Emails)	T-1 R-1	RW-17		How to Send Email using ASP.Net. Allotment of Test 1.	Learn how to send automated E-mail using C# code in ASP.Net	Demonstration using Visual Studio IDE	Sending Email from one email id to the other.
Week 5	Lecture 13	JavaScript in ASP.NET Pages and AdRotator Control(Calling of server side controls with the JavaScript)	T-1			Server side controls and JavaScript	Learn to call the server side controls with JavaScript	Demonstration using Visual Studio IDE	
		JavaScript in ASP.NET Pages and AdRotator Control(Register the JavaScript in the asp.net pages as a script)	T-1			Server side controls and JavaScript	Learn to call the server side controls with JavaScript	Demonstration using Visual Studio IDE	
	Lecture 14	JavaScript in ASP.NET Pages and AdRotator Control(Introduction and Applications of AdRotator Control)	T-1			Applications of Advertisement Controls, Develop small application with all controls	Students will learn to develop small web application and attach advertisement in it	Demonstration using Visual Studio IDE	web page showing the use of adrotator and its application for various advertisements
	Lecture 15					Test 1			
Week 6	Lecture 16	ASP.NET Server Controls and Web User Controls (Button, Lists, Literal, TextBoxes, FileUpload Control. AdRotator)	T-1			Working with Server Side Controls and their properties in ASP.Net	To understand the working of Server side controls and their properties and applications	Demonstration using Visual Studio IDE	
	Lecture 17	ASP.NET Server Controls and Web User Controls (Wizard, Multiview, Panel)	T-1			Working with Wizard, Multiview and Panel control	Learn to work with various tab controls and HTML controls	Demonstration using Visual Studio IDE	Multi tabbed student admission form

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Week	Lecture	Topic	Text/Ref		Session Objectives	Learning Outcome	Methodology	Assessment
Week 6	Lecture 18	ASP.NET Server Controls and Web User Controls(User Controls meaning & Creation)	T-1		Introduction to UserControl and its Application	Understanding of UserControl	Demonstration using Visual Studio IDE	
Week 7	Lecture 19	ASP.NET Server Controls and Web User Controls (Using Web User Control in Web Forms)	T-1		Introduction to UserControl and its Application	Understanding of UserControl	Demonstration using Visual Studio IDE	
				SPILL OVER				
Week 7	Lecture 20				Spill Over			
	Lecture 21				Spill Over			
				MID-TERM				
Week 8	Lecture 22	Navigation Controls and Master Pages(Using Navigation Controls)	T-1 R-1		Navigation Controls and its properties	Learn to use navigation controls in web pages	Demonstration using Visual Studio IDE	
	Lecture 23	Navigation Controls and Master Pages(Using Site Maps)	T-1 R-1		Introduction to site map and its applications	To understand and work on sitemap path and xml	Demonstration using Visual Studio IDE	
	Lecture 24	Navigation Controls and Master Pages(Designing Websites with Master Pages)	T-1		Master Pages and Nested Master Pages	Learn to develop master page and its applications	Demonstration using Visual Studio IDE	Website using Master pages with different web pages
Week 9	Lecture 25	Themes and CSS (Introduction to CSS)	T-1		Designing CSS	Understanding of CSS concepts and implementation web pages	Demonstration using Visual Studio IDE	Web page having CSS implemented
	Lecture 26	Themes and CSS(Designing Websites with Themes)	T-1		Designing websites with themes	Understanding of CSS concepts and implementation of themes on web pages	Demonstration using Visual Studio IDE	
	Lecture 27	ADO.NET and DataBinding Controls(Understanding Databases, Connected and Disconnected Databases)	T-1		Types of Database Connectivity. Allotment of Test 2	Learn to work with database doing with coding	Demonstration using Visual Studio IDE	
Week 10	Lecture 28	ADO.NET and DataBinding Controls(Datasets, Datatables, DataViews)	T-1		DataSets, DataTables and DataViews Applications	Learn to work with middleware connectivity	Demonstration using Visual Studio IDE	
	Lecture 29	ADO.NET and DataBinding Controls(Datasets, Datatables, DataViews)	T-1		DataSets, DataTables and DataViews Applications	Learn to work with middleware connectivity	Demonstration using Visual Studio IDE	
	Lecture 30				Test 2			

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Week	Lecture	Topic					
Week 11	Lecture 31	ADO.NET and DataBinding Controls(Repeater, DataList, DataGridView)	T-1		Data Controls.	Understanding to work with data control.	Demonstration using Visual Studio IDE.
	Lecture 32				Project - Website Design		
	Lecture 33	State Management(Using Global.asax)	T-1		Introduction of Globalasax and its application.	Learn to work with Global.asax application	Demonstration using Visual Studio IDE
Week 12	Lecture 34	State Management(Session, View State, Application)	T-1	RW-18	Session, View State and Application	Learn to work with stateless protocol http	Demonstration using Visual Studio IDE
	Lecture 35	Security with ASP.NET (Window Based Security)	T-1	RW-14 SW-1	Introduction to Window and form based Security	Work with window and form based security	Demonstration using Visual Studio IDE
	Lecture 36	Security with ASP.NET (Form Based Security)	T-1		Introduction to web config file and its structure (make use of some payment gateway)	Learn to use web config file for different purpose eg storing connection string	Demonstration using Visual Studio IDE
Week 13	Lecture 37	Security with ASP.NET(Use of Web.Config file)	T-1	RW-15	Introduction to web config file and its structure	Learn to use web config file for different purpose eg storing connection string	Demonstration using Visual Studio IDE
	Lecture 38	ASP.NET AJAX, Crystal Reports and Deploying Websites(Using Server-Side ASP.NET AJAX)	T-1	OR-1 RW-16	How to Use Ajax in ASP.Net	Understanding the usage of Ajax in ASP.Net	Demonstration using Visual Studio IDE
	Lecture 39	ASP.NET AJAX, Crystal Reports and Deploying Websites(Crystal Report- Working with crystal reports in ASP.Net)	T-1	RW-13	Working with Crystal Reports in ASP.Net	Learn the purpose and working of Crystal Report	Demonstration using Visual Studio IDE
Week 14	Lecture 40	ASP.NET AJAX, Crystal Reports and Deploying Websites(Deploy the web site on local IIS or remote IIS)	T-1		Deploy ASP.Net website on IIS	Learn to Deploy website on IIS	Demonstration Using IIS
		SPILL OVER					
Week 14	Lecture 41				Spill Over		
	Lecture 42				Spill Over		
Week 15	Lecture 43				Spill Over		
	Lecture 44				Spill Over		

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Week 15	Lecture 45			Spill Over				

Scheme for CA:

CA Category of this Course Code is:A0203 (2 best out of 3)

Component	Weightage
Project - Website Design	50
Test	50
Test	50

Details of Academic Task(s)

Academic Task	Objective	Detail of Academic Task	Nature of Academic Task (group/individuals)	Academic Task Mode	Marks	Allottment / submission Week
Project - Website Design	To let the students design and develop creative and dynamic websites in ASP.NET	5 marks are to be awarded for synopsis submission, 15 marks for implementation and 10 marks for viva/presentation	Group	Offline	30	3 / 11
Test 1	To analyse the logical and conceptual skills of students and know the depth of the knowledge gained by them.	Broad Topics to be covered in class test 1 are :Static and Dynamic Web Sites, HTML, Scripting Languages: JavaScript, ASP and PHP Server Side Scripting: ASP.NET, Use of WEB Forms, HTML Controls, Validations	Individual	Offline	30	4 / 5
Test 2	To analyse the logical and conceptual skills of students and know the depth of the knowledge gained by them.	Broad topics to be covered are: JavaScript in ASP.NET Pages and AdRotator Control,ASP.NET Server Controls and Web User Controls,Navigation Controls and Master Pages,Themes and CSS.	Individual	Offline	30	9 / 10

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