University of Gujrat
Faculty of
Computing & IT
Course outline for BS (CS)

Title	Web Systems and Technologies (CS-305)
Instructor	Mr. Muhammad Haroon
Credit Hours	3 **Theory/ week:** 　Weight　　　　　　3 Cr. Hrs. 　Contac t Hours　　　 3 Hrs. 　Lectures:　　　　　2/week 　 Duration　　　　　1.5 Hrs./Lecture
Prerequisite	Introduction to Computer and Information Technology(required)
Aims and Objectives	The course will help the students to utilize .Net Technologies particularly ASP.Net and C# to create effective, scalable, maintainable, and adaptable distributed applications to solve an extremely wide range of problems. Students can expect to gain experience in various .Net technologies such as ASP.Net, C#, Ado.Net, LINQ, XML. Besides they were taught major .Net related components including LINQ, Web Services, EMF, WCF, WPF etc. The students were involved in various industry oriented assignments and will learn to explore the power of .Net technologies in solving various enterprise problems. Aim to cover an in-depth treatment of the web technology and applications related topics including web standards, protocols, web applications architecture, web services, content management, web 2.0,, to explore some of the technologies used for display, data access and processing, and to give the students practice in integrating these to produce a functional web - based system.

Learning Outcomes	✓ The student will be able to develop a complete dynamic website ✓ The student will be able to develop, mange e-Commerce websites ✓ The student will have enough knowledge about emerging web technologies and can perform work with new technology with little effort. ✓ The student will have complete command on web page handling, web hosting and relating issue and domain handling problems. ✓ At the end of this course student will be able to work on .Net technologies and tools. ✓ Well trained on industry oriented web development frameworks ✓ To work in a team to complete a web project. ✓ Learn how to use different third party technologies to create a complete industry oriented project

Syllabus	In-depth study of World Wide Web architectures, protocols and standards (HTTP, HTML, xHTML, CGI, XML, WML, H TML5, etc.), Web Technologies and Tools (such as scrip ting tools) for web application development and deployment (web servers, application servers, etc.), Web Based Applications including search engines and content management, management of large scale web based information systems, Web Services, Microsoft Dot Net platform and technologies such as ASP.Net, C#, Ado.Net, LINQ, XML, EMF, WCF, WPF etc. practical exercise in web site development.
Course Book and Reference Material	All the notes will be provided .Reference books are 1. Professional Asp.Net 4 in C#-and VB, WROX Series 2. MCTS Self Placed Training kit Exam 70-562 Microsoft .Net Framework 3.5 ASP.NET by Mike Snell 3. Internet and World Wide Web How to Program By Deitel. (Highly Recommended) 4. JavaScript By Paul Kooros & Michele Dewolf
Assessment Criteria	Term Project + Quiz + Assignment = 25 Note: Term Project compulsory

Framework

Week #	Topic	Recommendation s for Learning Activities (Mention Assignments, Test, Quizzes, Practical, Case Study, Projects, Lab Work or Reading Assignments)
1	**Introduction, Overview:** Introduction to Web and its various technologies.	
2	**HTML** HTML Attributes ,Html Link s, HTML Tables, DIV concept, DIV Handling ,List all kinds, Image dealing in HTML, covering all tags, usage of all tags with notepad **HTML5:** Intro, elements, Canvas, SVG, Drag/Drop, Geolocation, Video, Audio, Form handling, SSE	
3	**Cascading Style Sheets (CSS) :** Intro and Basic Syntax, CSS Background, CSS Text, CSS Fonts ,CSS Border, web page body style sheet, Issues in CSS and solutions	Quiz. 1 Assignment. 1

4	**Java Script:** JS statement ,commenting concept ,usage of variables ,External JS and its usage ,JS Operators, JS Comparison ,JS Conditions , JS Popup, JS Functions ,JS For loop, JS do while loop, JS while loop ,Events in JS, Form validation with J S.	
5	**Introduction to C#:** Programming in C# Difference from C/C++, Java Variables, loops, decisions, functions, classes	Quiz. 2
6	**Introduction to C#:** Inheritance, operator overloading, polymorphism Events, delegates, indexers, properties	Assignment.2
7	**ASP.NET:** Programming in ASP.NET	
8	**ASP.NET** Web Forms, server side controls	
	M I D T E R M E X A M I NATION	

9	**ASP.NET** Web Forms, server side controls	
10	**ASP.NET:** Validation, state Management, Web parts, caching	Quiz. 3 Assignment.3
11	**ASP.NET** Ajax, Skins, Themes, custom Control	

12	**ASP.NET:** Localization, security, deployment	Quiz.4
13	**ADO.NET:** MS SQL Server 2012 Management Studio Installation, Tables, Queries, Stored Procedures.	Assignment.4
14	**ADO.NET** Intro to LINQ, LINQ to XML, LINQ to SQL, SQL Reporting	
15	**Final Term Project**	
16	Advance Topics	
	Revision and Discussion	

NOTE:

*** Some Advanced Topics may be Discussed or Given as   an Assignments**
* Quiz can be announced or Surprise Quiz
*Last day to submit Final Term Project is 2 weeks before Last Day of Class
*There can be quiz of viva for Assignment evaluation
*There will be min 4 Assignments and 4 Quizzes
*No Retake of Quiz, Assignment, Mid etc.

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