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**Course Outline**

**Course Code: CS-692**

**Class/Section/: BSCS 6<sup>th</sup> (M/E)**

**Course Title: Visual Programming**

**Instructor's Name: Dr. Asif Nawaz**

<b>Lectures</b>	<b>Proposed Contents</b>	<b>Lectures</b>	<b>Practical</b>
Lect-1	Introduction to .NET	Lect-2	Persistence framework Layer Object Relational Mapping
Lect-3	.NET framework details, JIT, Security, Memory Management, Garbage Collection, Mark / Compact Algorithm, Generations in garbage collection, CTS, CLS, BCL	Lect-4	Semester Project Proposal / Discuss objectives and outcome
Lect-5	Visual C# language basics constructs, Namespaces Enumerations, Classes, Access modifiers	Lect-6	First VC# Program “Hello World” Assignment
Lect-7	Properties, Attributes, Methods, Loops, Etc	Lect-8	Practical Usage
Lect-9	Collections and Generics Interfaces	Lect-10	VC#.NET Input Output Text Editor in VC#
Lect-11	Polymorphism (virtual and Abstract) Inheritance	Lect-12	Practical Usage
Lect-13	VC#.NET controls 1	Lect-14	Controls Exercise
Lect-15	VC#.NET controls 2	Lect-16	Controls Exercise
Lect-17	Overview of ADO.NET Connecting to Data Executing Commands Working with Data Choosing an ADO.NET Provider	Lect-18	Example of ADO.NET
Lect-19	Exception Handling Practice of Layered Programming Best Practices Validation in Windows	Lect-20	Demo for Layered Programming along with exception handling

	Applications		
Lect-21	DataSet DataReader Difference between Connected & Disconnected Modes of DataAccess	Lect-22	Practice
Lect-23	Stored Procedures and Its Usage in ADO.NET	Lect-24	Typed DataSet Practice How to Call Stored Procedure in VC#.NET
Lect-25	Stored Procedures and Its Usage in ADO.NET	Lect-26	
Lect-27	XML XML manipulation in VC#.NET	Lect-28	XML accessing in VC#.NET
Lect-29	Semester Projects MID Evaluation	Lect-30	
Lect-31	Revision and Students Questions and queries	Lect-32	
<b>Midterm Exam</b>			
Lect-33	Data Controls The DataGridView Control The ReportViewer Control	Lect-34	DataGridView Demo
Lect-35	Web Development (basic theory) Web Server / Container (basics) Web Request Cycle	Lect-36	Practical aspects of theory learnt
Lect-37	Asp.net basics, HTML Controls, Server Controls Difference between Html and Server Controls	Lect-38	Asp.NET First Example
Lect-39	Asp.net Controls Security Implementation	Lect-40	Quiz 4
Lect-41	Session, Cookies, Validations, ViewState Validation Controls in Asp.Net	Lect-42	Usage of Session, Cookies, Validation, ViewState
Lect-43	Comparison between: GridView, ListView, Repeater	Lect-44	Quiz 5
Lect-47	AJAX basics and asp.net	Lect-48	AJAX Practical Usage
Lect-49	Web Services in .NET	Lect-50	Web Service Example
Lect-51	.NET Assemblies Private Assemblies Shared Assemblies	Lect-52	Practical of theory learnt
Lect-53	Multi-lingual Applications Satellite Assemblies	Lect-54	Developing a Multi-lingual Application
Lect-55	.NET Remoting	Lect-56	Client Server Demo for Remoting
Lect-57	Threading in .NET	Lect-58	Thread Example
Lect-59	Network Programming in .NET	Lect-60	Client Server Programming using TCP/IP

Lect-61	Slack	Lect-62	Quiz 6
Lect-63	Semester Projects Final Evaluation	Lect-64	Semester Projects Final Evaluation
Lect-32	Revision and Student Questions and Queries		