

**BITS, PILANI -K.K.BIRLA GOA CAMPUS  
2011-2012**

**Course Handout**

Date: 08/26/2012

**Course Title:** Programming and Application Development in C#

**Faculty-In-Charge:**

**Team Members:** Krunal Patel, Siddharth Jain, Gowtham Sunkara, Roshan Kumar

**Note:** Each Lecture is of 2 hours

**Scope and Objective of Course:**

The goal of C# is to serve as a high-performance language for .NET development—one that is simple, safe, object-oriented, and Internet-centric. This course is intended to teach about all aspects of C# programming, from the language itself, through Windows and Web programming, to making use of data sources, and finally to some new and advanced techniques including Windows 7 Phone App Development.

**References:** -C# 2005 Programming Black Book, Matt Telles  
-Beginning Visual C# 2010, Karli Watson, Christian Nagel, Jacob Hammer Pedersen, Jon D. Reid, Morgan Skinner  
[-http://msdn.microsoft.com/en-us/library/ms123401.aspx](http://msdn.microsoft.com/en-us/library/ms123401.aspx)

**Course Plan:**

<b>Lect. No.</b>	<b>Learning Objectives</b>
<b>Basics of C#</b>	
1	Advantages and Architecture of the .NET Framework
2	Basic Programming Concepts
3	Classes and Objects
4	Properties and Methods
5	Object-Oriented Techniques
6	Working with Arrays
7	Delegates and Events
8	Generics, Handling Exceptions
9	Collection Classes
10	LINQ
<b>ASP.NET Web Development</b>	
11	Validating User Input, Navigating a Website
12	Data Binding, Defining Master Pages
13	Using State Management Techniques
14	Installation of SQL Server, Brief Introduction to SQL, Accessing Data by using ADO.NET
15	Going further with ADO.NET & Improving Performance by using Caching
16	ASP.NET Security Essentials, Deploying an ASP.NET Web Application

<b>Windows Forms Development</b>	
19-22	Basic Windows Programming
	Advanced Windows Forms Features
	Deploying Windows Applications
<b>Windows 7 Phone App Development</b>	
23	Starting with Windows Phone
24	UI Design
25	Handling Data
26	Using Sensors and Services
27	Publishing and Monetizing Apps

**Evaluation Scheme:**

<b>Component</b>	<b>Date</b>	<b>Weightage</b>
Mid-sem	TBA	<b>40%</b>
Comprehensive	TBA	<b>60%</b>