C. U. Shah University, Wadhwan City

Faculty of Computer Science
Name of Program: Bachelor of Computer Application (BCA)
Semester : III
w.e.f. June-2014
Teaching & Evaluation Scheme

Sr. No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							Total Marks
								Theory				Practical			
			Th	Tu	Pr	Total		Sessional Exam		University Exam		Internal		Uni.	
								Marks	Hrs	Marks	Hrs	Pr	TW	Pr	
1	4CS03BDO2	Visual Studio.Net	4	-	-	4	4	30	1.5	70	3	-	-	-	100

Objectives: To study the fundamentals of OOPs concepts and develop console as well as windows applications with the help of C#.NET language.

Pre-requisites: Student should have knowledge about the fundamentals of programming languages like variable, data types, looping statements and conditional statements.

Ch. No.	Chapter Name	Chapter Topics	Total Hrs.
1	Introducing the Microsoft .NET Platform	Introducing the .NET Platform, Microsoft .NET and Windows DNA, Microsoft .NET Architecture Hierarchy, Features of the .NET Platform: Multilanguage Development, Platform and Processor Independence, Automatic Memory Management, Easy Deployment, Distributed Architecture, Interoperability with Unmanaged Code, Security, Performance and Scalability, Components of the .NET Architecture: Common Language Runtime(CLR), Frame Work Class Library(FCL), Managed/Unmanaged Code, Intermediate Language(IL), Common Type System(CTS), .NET Base Class Library (BCL), Assemblies, Metadata, Assemblies and Modules, Assembly Cache, Reflection, Just In Time Compilation(JIT), Garbage Collection	5
2	Introducing C# Programming	Introduction of .NET IDE, Scope & Visibility Of Variable, Introducing Operators, Compiling and Executing, Declaring the Main Method, Organizing Libraries with Namespaces, Using the using Keyword, Adding Comments, Introducing Data Types, Value Types, Reference Types, Boxing and UnBoxing, Introducing Decision Making Statements, Introducing LoopingStatements, Using the break Statement, Using the continue Statement, Using the return Statement, Using the gotoStatement, Handling Arrays One-Dimensional, Two-dimensional, Jagged Array	8
3	OOPs	Concept of Class, Object, Encapsulation, Inheritance, Polymorphism, Creating Class and Objects Methods with Static and Non-Static Members, Introducing Constructor, Overloading Of Operators & Methods, Dispose & Finalize methods, Debugging & Error Handling Sealed Class & Abstract Class, Overriding Methods, Interface inheritance	9
4	Property, Indexer, Pointer	Property: Introducing Property, Use of Property, Get and Set, Indexer, Introducing Indexer, Use of Indexer, Introducing Pointer, Use of Pointer (unsafe), Introducing Delegates, Use of Delegates (Single Cast / Multicasting Cast), Creating Events with Event Delegate, Collections: ArrayList, HashTable, Stack, Queue, SortedList	8

5	Windows Application	Overview of Windows Application, Creating and Use of Windows Application, MessageBox Class, Introductions to Form, its Property, Events with Parameters, Windows Controls, Button, Label, TextBox, RadioButton, ComboBox, CheckBox, ListBox, PictureBox, ScrollBar, TreeView, ToolTip, Timer, Panel and Group, Menu, MenuStrip, ContextMenuStrip, Dialog Boxes, ColorDialog, FontDialog, SaveFileDialog and OpenFileDialog, MDI, Introducing MDI Concept, Use of MDI Concept of Inheriting Form	12
6	User Controls	Creating User Control (Property, Method, Event) , Using User Control in Windows Projects as Component	2
7	ADO.NET	Introduction of ADO.NET, Connected and Disconnected Architecture, Data Providers in ADO.NET, Connection Object, Connected Architecture, Command and DataReader, Disconnected Architecture, DataAdapter, DataSet, DataTable, DataRow, DataColumn, DataView, Data Binding, Bind Standard Controls, Bind GridView	8
8	Report	Introduction of Crystal Reports, Types of Crystal Reports, Report Sections, Formula, Special Field and Summary in Report	2
9	Setup Setup Project	Setup (Package), Introduction of Setup (Package), Types of Setup Projects, Creating Setup Project, File System Editor, User Interface Editor, Launch Conditions Editor	2
Total::			56

Teaching Methodology: Revision, Paper Solving, Seminar, Expert Talk, MCQ Quiz, Viva Test, Programming Test

Learning Outcomes:
After successful completion of the course, students should be able to understand .Net framework, What is windows application, knowledge of C#, Connectivity, Reports etc…

Books Recommended:
Programming C #, E Balaguru Swami, Tata McGraw-Hill ISBN: 9780070702073
   1.   C#.NET Programming Black Book - stevenholzner –dreamtech Press ISBN: 9788177228328
Reference Books:
   1.   Professional .NET framework 2.0 – Joe Duffy, John wiley publication, ISBN: 9788126507931
   2.   Microsoft ADO.NET 2.0 Step By Step Rebecca Riordan, Microsoft Press, ISBN: 9780735648456
   3.   Advance .NET Technology, Chirag Patel, Dream Tech Press ISBN: 9789350042083