



C. U. Shah University, Wadhwan City

Faculty of Computer Science

Name of Program: Bachelor of Computer Application (BCA)

Semester : II

W.e.f. June-2014

Teaching & Evaluation Scheme

Sr. No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							
			Th	Tu	Pr	Total		Theory				Practical			Total Marks
								Sessional Exam		University Exam		Internal		Uni	
								Marks	Hrs	Marks	Hrs	Pr	TW	Pr	
3	4CS02BDO1	.Net Technology	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 <u>Features of the .NET Platform</u> Multilanguage Development, Platform and Processor Independence, Automatic Memory Management, Easy Deployment, Distributed Architecture, Interoperability with Unmanaged Code, Security, Performance and Scalability <u>Components of the .NET Architecture</u> 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	<u>Introduction of .NET IDE</u> Scope & Visibility Of Variable, Introducing Operators, Compiling and Executing, Declaring the Main Method, Organizing Libraries with Namespaces, Using the using Keyword, Adding Comments <u>Introducing Data Types</u> 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 goto Statement <u>Handling Arrays</u> 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, Delegates, Events, Collections	Property: Introducing Property, Use of Property, Get and Set Indexer: Introducing Indexer, Use of Indexer Pointer: Introducing Pointer, Use of Pointer (unsafe) Delegates: Introducing Delegates, Use of Delegates (Single Cast / Multicasting Cast) Events: 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 Form: 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	7
8	Report	Introduction of Crystal Reports, Types of Crystal Reports, Report Sections, Formula, Special Field and Summary in Report	2
9	Setup (Package), 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::			55

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:

1. Programming C #, E Balaguru Swami, Tata McGraw-Hill ISBN: 9780070702073
2. C#.NET Programming Black Book - steven holzner –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