

**Andhra Pradesh State Council of Higher Education**  
**M.Sc. Computer Science Syllabus**

**MCS 302 - .NET Programming**

**UNIT-I: Visual basic 2005:**

**Getting started with Visual Basic 2005:** Arithmetic Operators, Data type, Statements, Control Statements, Loops, Arrays, Structures, Val and Structure functions, Creating Visual studio Applications, Saving Visual Basic 2005 Application.

**Object Oriented Programming:** Basic Principles of Object Oriented Programming, Member Access Modifiers, Define Class, Creating Objects, Constructors, Inheritance, Abstract Classes, Interfaces, Polymorphism

**Windows Forms:** Introduction to the windows forms, Setting the title Bar Text, Minimizing and Maximizing a form, Setting initial position of a form, Working with multiple forms, Creating adding controls to a form, Setting controls Tab order, Naming Controls, Setting Properties at design time, Setting properties at run time, Creating a message box, Creating a Input box, Creating MDI Applications, Creating Dialog box, Commenting the code

**Label, TextBox, Button, ComboBox and ListBox Controls:** Label Control, Button Control, ComboBox Control, ListBox Control, Project

**Panel, PictureBox, Progress Bar and Timer Controls:** Panel Control, Picture box Control, Progress Bar Control, Timer Control, Project

**Checkbox, radio button, and group box controls :**Checkbox control, Radio button control, Progress bar control, Timer control, Project.

**Menus, built-in dialog box, printing and tree view controls:** Menus, Folder Browser Dialog Control, Open File Dialog Control Save File Dialog Control, Font File Dialog Control, Color File Dialog Control, Print Document Control, Tree View Control, Project

**Mouse Events and Keyboard Events:** Mouse Events, Keyboard Events

**Handling Errors and Exceptions:** Errors, Exceptions

**UNIT-II : ASP.NET 2.0**

**ASP.NET 2.0 Essentials:** Introduction to Asp.NET, Benefits of Asp.NET, What's new Asp.NET?, Introduction Asp.NET 2.0 IDE

**Developing a Web Application :**HTML, DHTML, PHP, JSP, PERL, ASP.NET 2.0 Provider Model, ASP.NET 2.0 Coding Model, Code Sharing, Compilation in ASP.NET

**Standard Controls:** Introduction to standard controls, Label Control, TextBox Control, Button Control, Image Button Control, ListBox Control, Radio Button Control

**Navigation Controls:** Introduction to Navigation Controls, Site Map Path Controls, Menu Controls, Tree View Controls

**Validation Controls:** Introduction to validation control, Base validator class, Required field validator control, Range validator control, Regular Expression validator control, Compare validator control, Custom validator control, Validation summary control

**Login controls:** Introduction to login controls, Login control Login view control, Login name control, Login status control Password recovery control

**Master pages and Themes:** Need for Master Pages and Themes, Creating a Simple Master Page, Creating a Nested Master Page Themes, Creating Themes, Applying Themes on controls at Runtime

### **UNIT-III: C# 2005**

**Introduction to Visual C# 2005:** Introduction, Features of Visual C# 2005, Creating Visual C# 2005, Key words, Identifiers, Data Types, Variables, Scope of Variables, Constants, Operators Operator Precedence and Associativity, Expressions, Punctuators Control Statements, Loops, Interrupting Loops using Jump Statements, Creating Arrays, Creating Enumerations, Creating Structures, Methods

**Object Oriented Programming :** Basic Principles of Object Oriented Programming, Member Access Modifiers, Defining a Class, Creating Objects, Constructors, Static Members, Inheritance, Abstract Class, Interfaces, Polymorphism, Operator Overloading

**Windows Forms :** Introduction to Windows form, Setting the title bar Text, Minimizing or Maximizing a forms, Working with multiple Forms, Setting the startup form, Adding controls to a form, Setting controls Tab order, Setting properties at Design time, Setting properties at Run time, Showing and Hiding controls and Forms, Creating a message box, Commenting the code, Handling Events.

**Label, TextBox, Button, ComboBox and ListBox Controls:** Label Control, TextBox Control, Button Control, ComboBox Control ListBox Control, Project

**Panel, PictureBox, Progress Bar and Timer Controls:** Panel Control, Picture box Control, Progress bar Control, Timer Control Project

**Checkbox, Radio button and Group box controls :** Checkbox control, Radio button control, GroupBox Control, Project

**Menus, built-in dialog box, printing and tree view controls:** Menus, Folder Browser Dialog Control, Open File Dialog Control Save File Dialog Control, Font File Dialog Control, Color File Dialog Control, Print Document Control, Tree View Control, Project

**Mouse Events and Keyboard Events:** Mouse Events, Keyboard Events

**Handling Errors and Exceptions:** Errors, Exceptions

### **UNIT-IV : ADO.Net & Data Binding :**

**Accessing Data using ADO.NET (C# 2005):** What are Databases? Basic SQL Statements, Working with ADO.NET, Overview of ADO.NET Objects Data Grid View Control, Accessing Data using Server Explorer, Creating a new data connection, Accessing data using data adaptors and data sets, Previewing data from data adaptors Connecting to an MS Jet database

**Data Binding(C# 2005):** Introduction, Simple Data Binding, Complex Data Binding, Implementing Data Binding, Project

**Working with Databases (ASP.NET 2.0):** What are Databases?, Working with ADO.NET, Overview of ADO.NET Objects, Basic SQL statements, ASP.NET 2.0 data display controls, ASP.NET 2.0 data source controls, Accessing data with server explorer, Creating a web applications using data display controls

**Accessing data using ADO.NET (Visual Basic 2005):** What are Databases?, Basic SQL statements, Working with ADO.NET, Overview of ADO.NET objects, Data Grid View Control, Accessing data using server explorer, Creating a new data connection, Accessing data using Data Adapters and Datasets, Previewing data from Data Adapters, Connecting to an MS Jet database

**Data Binding (Visual Basic 2005):** Introduction, Simple DataBinding, Complex Data Binding, Implementing Data Binding, Project

**Prescribed Book:**

Vikas Gupta, ".Net Programming", Dream Tech (2008).

**Chapters :**

UNIT – I - 1 to 8, 11 chapters in Visual Basic 2005

UNIT – II – 1 to 7, 9 chapters in ASP.NET 2.0

UNIT – III – 1 to 8, 11 chapters in C# 2005

UNIT – IV – 9, 10 chapters in Visual Basic 2005

8 chapter in ASP.NET 2.0

9, 10 chapters in C# 2005