

SRM UNIVERSITY

Faculty of Science and Humanities

Department of Computer Science

Subject Name: .Net Programming

Subject code: BSC1161

Staff Name: V. Raja

No. of Hrs Per week: 5

Text Books:

1. Visual Basic.NET, Michael Halvorson, Prentice Hall of India, New Delhi, 2002. [For Units I, II and V]
2. Visual Basic .Net – The Complete Reference, Jeffrey R. Shapiro, Osborne, 2002. [For Units III and IV].

Unit I: VB.NET FUNDAMENTALS: Introduction to .NET Framework - Controls – Menus and Dialog Boxes – Variables and Operators – Decision Structures – Loops and Timers - Debugging - Trapping and Handling Errors

Session	Description	Reference with chapter
1	Introduction to .NET Framework	TB : 1 – Chapter 1.
2	Controls	TB : 1 – Chapter 3.
3	The Basic Use of Controls	TB : 1 – Chapter 3
4	Controls for Gathering Input	TB : 1 – Chapter 3
5	Menus and Dialog Boxes	TB : 1 – Chapter 4.
6	Adding Menus by Using the <i>MenuStrip</i> Control	TB : 1 – Chapter 4.
7	Variables and Operators	TB : 1 – Chapter 5.
8	Decision Structures	TB : 1 – Chapter 6.
9	<i>If . . . Then</i> Decision Structures .	TB : 1 – Chapter 6.
10	<i>Select Case</i> Decision Structures	TB : 1 – Chapter 6.
11	Loops and Timers	TB : 1 – Chapter 7.
12	<i>For . . . Next</i> Loops <i>Do</i> Loops	TB : 1 – Chapter 7.
13	Debugging Visual Basic Programs	TB : 1 – Chapter 8.
14	Trapping and Handling Errors	TB : 1 – Chapter 9.

Unit II: VB.NET PROGRAMMING: Modules and Procedures – Arrays and Collections – Exploring Text Files and String Processing – Automating Microsoft Office Applications – Deployment of VB.NET Applications.

Session	Description	Reference with chapter
15	Modules and Procedures	TB : 1 – Chapter 10.
16	Creating a Module	TB : 1 – Chapter 10.
17	Function Procedures	TB : 1 – Chapter 10.
18	Arrays and Collections	TB : 1 – Chapter 11.
19	Creating an Array	TB : 1 – Chapter 11.
20	Working with Array Elements	TB : 1 – Chapter 11.
21	Working with Object Collections	TB : 1 – Chapter 12.
22	Exploring Text Files and String Processing	TB : 1 – Chapter 13.
23	Reading Text Files	TB : 1 – Chapter 13.
24	Writing Text Files	TB : 1 – Chapter 13.
25	Sorting Text	TB : 1 – Chapter 13.
26	Automating Microsoft Office Applications	TB : 1 – Chapter 13.
27	Deployment of VB.NET Applications.	TB : 1 – Chapter 13.

Unit III: Class and objects: Types, Structures and Enumerations – Classes – Interfaces – Exceptions: Handling and Classes

Session	Description	Reference with chapter
28	Types, Structures and Enumerations	TB : 2 – Chapter 8.
29	Structures	TB : 2 – Chapter 8.
30	Enumerations	TB : 2 – Chapter 8.
31	The Object–Reference Model	TB : 2 – Chapter 8.
32	Classes	TB : 2 – Chapter 9.
33	Modeling.. Modularity	TB : 2 – Chapter 9.
34	Inheritance	TB : 2 – Chapter 9.
35	Interfaces	TB : 2 – Chapter 10.
36	Implicit Interfaces	TB : 2 – Chapter 10.
37	Explicit Interfaces	TB : 2 – Chapter 10.
38	Implementing Interfaces	TB : 2 – Chapter 10.
39	Exceptions: Handling and Classes	TB : 2 – Chapter 11.
40	Exception–Handling Models	TB : 2 – Chapter 11.
41	Recovering from Exceptions	TB : 2 – Chapter 11.
42	Exception Statements	TB : 2 – Chapter 11.

Unit IV: Advanced Design Concepts: Patterns, Roles and Relationships – Advanced Interface Patterns: Adapters, Delegates and Events – Data Processing and I/O.

Session	Description	Reference with chapter
43	Patterns, Roles and Relationships	TB : 2 – Chapter 13.
44	Designs on Classes	TB : 2 – Chapter 13.

45	Singleton	TB : 2 – Chapter 13.
46	Bridge	TB : 2 – Chapter 13.
47	Advanced Interface Patterns: Adapters, Delegates and Events	TB : 2 – Chapter 14.
48	Adapters and Wrappers	TB : 2 – Chapter 14.
49	Delegates.	TB : 2 – Chapter 14.
50	Sorting Data with Delegates	TB : 2 – Chapter 14.
51	Data Processing and I/O	TB : 2 – Chapter 15.
52	Working with Strings	TB : 2 – Chapter 15
53	Members of the String Class	TB : 2 – Chapter 15
54	String Formatting	TB : 2 – Chapter 15
55	Building Strings with StringBuilder	TB : 2 – Chapter 15
56	Regular Expressions	TB : 2 – Chapter 15

Unit V: VB.NET UI DESIGN AND DATABASE APPLICATIONS: Windows Forms – Graphics and Animation - Inheriting Forms and Creating Base Classes – Working with Printers – ADO.NET – Data Grid Control

Session	Description	Reference with chapter
57	Windows Forms	TB : 1 – Chapter 14.
58	Adding New Forms to a Program	TB : 1 – Chapter 14.
59	Working with Multiple Forms	TB : 1 – Chapter 14.
60	Adding Controls to a Form at Run Time	TB : 1 – Chapter 14.
61	One Step Further: Specifying the Startup Object	TB : 1 – Chapter 14.
62	Graphics and Animation	TB : 1 – Chapter 15.
63	the <i>System.Drawing</i> Namespace	TB : 1 – Chapter 15.
64	Adding Animation to Your Programs	TB : 1 – Chapter 15.
65	Inheriting Forms and Creating Base Classes	TB : 1 – Chapter 16.
66	Inheriting a Form by Using the Inheritance Picker	TB : 1 – Chapter 16.
67	Creating Your Own Base Classes	TB : 1 – Chapter 16.
68	Working with Printers	TB : 1 – Chapter 17.
69	Using the <i>PrintDocument</i> Class .	TB : 1 – Chapter 17.
70	Printing Multipage Text Files	TB : 1 – Chapter 17.
71	ADO.NET	TB : 1 – Chapter 18.
72	Database Programming with ADO.NET	TB : 1 – Chapter 18.
73	Database Information	TB : 1 – Chapter 18.
74	Data Grid Control	TB : 1 – Chapter 19.
75	Using <i>DataGridView</i> to Display Database Records	TB : 1 – Chapter 19.