

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT
M.Sc. (I.T.) [Five Years Integrated Course]
M.Sc. (Information Technology)
1st Semester Syllabus

Effective From July-2003

Paper No : 702

Paper Title : Advanced Programming Environment – II. (VB.NET & ASP.NET)

[L : 4, P : 0 Hrs]

1. VB .NET Programming Basic

- 1.1. Working with Data Structures,
- 1.2. VB.NET Controls, VB.NET Events
- 1.3. Building Windows Applications
- 1.4. Sub Procedure, Functions, Arrays, Timers, Files, Printing
- 1.5. Displaying Dialog Boxes, Multiple forms, Standard Modules, Menus

2. Advanced Object-Oriented Techniques

- 2.1. Classes, Objects, Inheritance, Containment,
- 2.2. Event Handling, Delegates, Interface.
- 2.3. Interacting with objects, early – late binding

3. Debugging and Error Handling.

4. Interacting with Input/Output files.

- 4.1. Directories, Files, Path
- 4.2. DirectoryInfo, FileInfo Classes, Streams, etc.

5. Accessing Databases with SQL Server and ADO.NET

- 5.1. ADO.Net Important components, Providers
- 5.2. Structure & working with DataSet.
- 5.3. Using DataSet & DataViews.

6. Building Class Libraries, Your Own Custom Controls & Programming Custom Graphics

7. Programming ASP .NET with VB.NET

- 7.1. Constants, Variables, Data types, Operators.
- 7.2. Control Structure & Procedural Programming.
- 7.3. How dynamic Website Application works
- 7.4. Processing of ASP.NET Application.
- 7.5. The Common Language Runtime (CLR).

8. Event driven Programming and Postback.

- 8.1. ASP.NET Events, HTML Events.
- 8.2. Server Control Events in ASP.NET.
- 8.3. Event Driven Programming and Postback.

9. Objects & Components in ASP.NET.

- 9.1. Namespace, Page Class
- 9.2. Request Object, Response Object
- 9.3. Server Object, Components & Control
- 9.4. State Handling
 - 9.4.1. Session State, Cookies
- 9.5. Scripting Object Model

10. Objects & Structured Data

- 10.1. Collection, types of Collection, Arrays as Collection
- 10.2. Array list
- 10.3. Hash table, Sorted List

11. Web Services and ASP.NET

- 11.1. Web Service Development
- 11.2. WSDL & SOAP
- 11.3. Web Services Background

12. Reading & Manipulating with Data Source

- 12.1. ADO .NET
- 12.2. ADO .NET Object
- 12.3. Connection, Command, Data Reader, Data Set, Data Table, Data Row Object.
- 12.4. Disconnected Data.
- 12.5. Methods for Updating Data.
- 12.6. Data Adapter Command.

13. ASP .NET Server Controls

- 13.1. Rich Object Model.
- 13.2. Automatic Browser Detection.
- 13.3. Properties, Events.
- 13.4. Page Lifecycle

Main Readings:

- 1. Beginning VB.Net – Wrox.
- 2. Visual Basic .Net Programming. – Dreamtech. - Peter Aitken's
- 3. Beginning ASP.NET using VB.NET – Wrox.
- 4. Visual Basic .NET Object Oriented Programming – Techmedia – New Riders.

Supplementary Reading:

- 1. Visual Basic .Net Programming Black Book. – Dreamtech.
- 2. VB.NET Programming Developer's Guide. – Dreamtech.
- 3. Visual Basic .Net Programming Little Black Book. – Dreamtech. – Steven Holzner
- 4. Programming VB.NET A guide for Experienced Programmers.– Apress – Cornell and Morrison.
- 5. Visual Basic .Net Projects. – Dreamtech. – Martin
- 6. Developing Web Applications with Visual Basic .Net and ASP.Net. – Dreamtech.
- 7. Starting out with Visual Basic .NET Programming 2nd Edition. – Dreamtech. – Tony Gaddis, Kip Irvine, Bruce Denton.
- 8. Visual Basic.NET Developer's Headstart. – TMH. – Jeffrey Shapiro
- 9. Professional VB.NET – Wrox.
- 10. Visual Basic .NET Unleashed. – Techmedia. – Sams.
- 11. Visual Basic .NET Programmer's Guide: The Base Class Library. – Techmedia – Sams.
- 12. VB to VB.Net – Techmedia. – Sams.
- 13. Professional ASP.NET – Wrox.
- 14. ASP.NET Programmer's Reference – Wrox
- 15. ADO.NET Programmer's Reference – Wrox.
- 16. Magic of ASP.NET with C# - Firewall Media – Kumar Sanjeev, Shibi Panikkar
- 17. Special Edition Using ASP.NET –Pearson Education – Richard Leinecker.
- 18. ASP.NET A Beginner's guide – TMH – Dave Mercer.
- 19. ASP.NET Unleashed. – Techmedia – Sams.
- 20. ASP.NET for Developers – Tecmedia – Amundsen.