

# Module-I: Programming in .NET Technologies

## Course Outline

S.No.	Name of the Chapter	No of Theory Hours	No of Practical Hours
1.	C#	25	25
2.	DBMS	15	15
2.	VB.Net	25	25
3.	ASP.net	25	25
	Total No of Hours	90	90

### Detailed Syllabus

#### 1. C#

Getting Started with .Net Framework, Exploring Visual Studio .NET, Inside a C# Program, Data Types, Statements, Arrays, Using Strings, Objects, Classes and Structs, Properties, Inheritance, Indexers, Delegates, Events, Namespaces, Generics, Collections and Data Structures, Exception Handling, Threading, Using Streams and Files, Reflection, Assemblies, versioning, Windows Forms, Controls, Data binding to Controls, Advanced Database Programming using ADO.net, Using GDI +, Networking, .net Remoting, Manipulating XML.

#### 2. VB.net

Creating Applications with Visual Basic.NET, Variables, Constants, and Calculations, Making Decisions and Working with Strings, Lists, Loops, Validation, Sub Procedures and Functions, Multiple Forms, Standard Modules, and Menus, Arrays, Timers, Form Controls, File Handling, Exception Handling, Working with Databases, Advanced Database Programming using ADO.net, Classes, Generics, Collections, Inheritance, Custom Controls, Packaging & deployment, Using Crystal Reports.

#### 3. ASP.net

Building a Web Application, Examples Using Standard Controls, Using HTML Controls, Validating Form Input Controls using Validation Controls, Understanding Applications and State, Applying Styles, Themes, and Skins, Creating a Layout Using Master Pages, Binding to Databases using Controls, Data Management with ADO.net, Creating a Site Navigation Hierarchy, Navigation Controls, Membership and Role Management, Login Controls, Securing Applications, Caching For Performance, Working with XML, Using Crystal Reports in Web Forms.

## **Module-II: Programming in Java and J2EE**

### **Course Outline**

<b>S.No.</b>	<b>Name of the Chapter</b>	<b>No of Theory Hours</b>	<b>No of Practical Hours</b>
1.	Core Java	30	30
2.	Java GUI Development	30	30
3.	J2EE	30	30
	Total No of Hours:	90	90

### **Detailed Syllabus**

#### **1. Core Java:**

- a. Overview of Java, Data types, variables and Arrays, Operators, Control statement
- b. Classes, Methods
- c. Inheritance, Packages and Interfaces
- d. Exception Handling
- e. Multi threaded Programming
- f. I/O, Applets
- g. String Handling
- h. Exploring Java.Lang
- i. Network Programming

#### **2. Java GUI Development**

- a. Java AWT
- b. Applets Classes
- c. Event Handling
- d. Graphics
- e. Swing

#### **3. J2EE**

- a. Introduction to J2EE
- b. JDBC
- c. RMI, Jar, WAR
- d. JSP, JSTL, servlets
- e. Java Beans

## **Module-III: WEB PAGE DESIGNING**

### **Course Outline**

<b>S.No.</b>	<b>Name of the Chapter</b>	<b>No of Theory Hours</b>	<b>No of Practical Hours</b>
1.	Photoshop	20	20
2.	Flash basics	10	10
3.	HTML	20	20
4.	Dreamweaver	20	20
5.	Databases	20	20
	Total No of Hours	90	90

### **Detailed Syllabus**

**1. Photoshop:** Starting photoshop and opening file, Using the tools, Viewing images, Working with palettes, layers, editing text, slicing images, color management.

**2. Flash Basics:** Introduction to flash interface, using tools, creating symbols(movie clips,buttons,graphics),saving and publishing file for web.

**3. HTML:** Understanding HTML, Tags, Paragraphs and Line break, Headings, Text Alignment, Boldface, Italic, Spacing, Formatting, Font size and color, creating HTML form, Creating web page, Putting Graphics on web page, Custom background and color, Page design and layout, Linking to other Web page, Dynamic web page.

**4. Dreamweaver:** Overview of web technology, Static WebPages, Dynamic web contents, Getting your first webpage, Dreamweaver Workspace , Panel groups and Panels, Property inspector, Insert panel group, Setting up the preview browsers, Creating your first website, Creating a web page, Adding metadata and Header information, Building the page design, The table structure, Site structure, Navigation and content, Adding Contents to pages, Style sheets and templates, Layers, Behaviors and Dynamic effects, Adding Logic to your pages Passing Values form page to page, Creating a form that uses GET, Sending and Receiving values using POST, Creating a hit counter, Securing web sites.

**5: Database:** What is a Database, The sample Database, Different kinds of databases, creating a database driven website, DSN connection strings, Enhancing the login page, Retrieving and displaying data from databases, Storing information in a Database.

**Module-IV: Call Center and BPO Training**  
**Course Outline**

<b>S.No.</b>	<b>Name of the Chapter</b>	<b>No of Theory Hours</b>	<b>No of Practical Hours</b>
1.	Module-1	25	25
2.	Module-II	15	15
3.	Module-III	25	25
4.	Placement	25	25
	Total No of Hours	90	90

**Detailed Syllabus**

**Course Contents:**

**Module-1:** Computer Architecture, Computer Trouble Shooting, Operating Systems, MS-Office, Internet, Networking etc

**Module-II:** Communication and Call Handling skill, Behavioral skill, CRM concept, Corporate Culture, Presentation skill, Personality Development etc

**Module-III:** Neutral accent speaking, Pure Vowels, Diphthongs, Consonant Sounds, Consonant Clusters, Word stress and intonation, Conversation, Listening Skills etc

**Placement:** Placement assistance is provided from campus.

## Module-V: Bioinformatics Tools and Application Course Outline

S.No.	Name of the Chapter	No of Theory Hours	No of Practical Hours
1.	Biological Databases	20	20
2.	Protein Visualization tools	20	20
3.	Sequence and Phylogenetic Analysis	20	20
4.	Drug Development	10	10
5.	PERL programming	20	20
	Total No of Hours	90	90

### Detailed Syllabus

- 1. Biological Databases:** EMBL, GENBANK, PDB, SwissProt, Tr EMBL.
- 2. Protein Visualization tools:** Rasmol, SwissPDB Viewer, CN3D.
- 3. Phylogenetic Analysis:** Detecting open reading frames, Sequence Assembly, Mutation matrices, Pairwise alignments, BLAST, multiple sequence alignment, phylogenetic analysis, Clustal V, ClustalW, Phylip.
- 4. Drug Development:** Introduction to Drug discovery Process, Overview of drug designing approaches, Hex, AutoDock
- 5. PERL Programming:** Introduction, Data Types, Arithmetic and logical Operators, Conditionals and Loops, Input and Output, Regular expression and Pattern Matching, Functions and Subroutines ,Application of Perl in Bioinformatics.