Course: Major Elective Dot Net Programming

Semester: II Credits: 4 Subject Code: SMAJCDNP223557 Lectures: 60

Course Outcomes:

At the end of the course, the learner will be able to:

- CO1-Understand the fundamentals of DOTNET framework and C# programming languages.
- CO2-Design and develop web-based .NET applications using VB.NET.
- CO3- Represent Object-Oriented principles applied in ASP.NET
- CO4- Evaluate appropriate data storage and data access strategy based on type, size of the data and need for data security.
- CO5-Analyze the problem statement and choose appropriate features / technologies to provide solutions and communicate observations.
- CO6- Identify different approaches for building service-oriented applications as well as create and use libraries for solving real life problems.

Unit 1:Introduction to Dot Net Framework

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- Introduction to DOT NET FRAMEWORK-What is Framework? ,Architecture of Dot Net Framework: Common Language Runtime, Common Type System(CTS), Common Language Specification(CLS),JIT Compilers, Base Class Library, IDE (Integrated Development Environment), Event Driven Programming
- Introduction to VB.Net -Basics of VB.Net:Operators, Data Types,Control Structures, Build Windows Applications: Controls: Form, TextBox, Button, Label, CheckBox, ListBox, ComboBox, RadioButton, DateTimePicker, MonthCalender, Timer, Progressbar,Scrollbar, PictureBox, ImageBox, ImageList, TreeView, ListView, Toolbar, StatusBar, Datagridview, Menus and PopUp Menu, Predefined Dialog controls: Color,Save,File,Open, Font, DialogBox InputBox(), MessageBox, MsgBox()

Unit 2:Introduction to C#

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- Introduction to C#
- Language Fundamentals- Data type and Control Constructs, Value and Reference Types, Boxing, Arrays, String class and its various operations, Functions
- Object Oriented Concepts- Defining classes and Objects, Access modifiers, Constructors, Inheritance, Interface, Abstract Class, Method Overloading and Overriding, Delegates

Unit 3:Introduction to ASP.Net

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- What is ASP.NET?
- ASP.NET Page Life Cycle
- Architecture of ASP.NET
- Forms, Web Pages, HTML forms

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- Request & Response in Non-ASP.NET pages
- Using ASP.NET Server Controls
- Overview of Control structures
- Functions
- HTML events- ASP.NET Web control events, Event driven programming and postback
- Introduction to Web forms-Web Controls, Server Controls, Client Controls, Navigation Controls, Validations, Master Page, State Management Techniques

Unit 4:Introduction to Ado.Net

15

- Basics of Ado.net-Connection Object, Command Object, Data Table, Data
 Reader Object, Data Adapter Object
- Datagridview and Data Binding-Insert, Update, Delete records
- Navigation Using Data Source

Reference Books:

- Anne Prince and Doug Lowe, VB. NET database programming with ADO. NET, CRC Press
- Francesco Balena, Programming Microsoft Visual Basic.NET, Microsoft Press
- Imar Spaanjaars, Beginning ASP.NET3.5, Wrox Publication
- Jefrey R. Shapiro, The Complete Reference -Visual Basic .NET, McGraw-Hill Education
- Jesse Liberty, Dan Maharry, Dan Hurwitz, Programming ASP. NET3, O'Reilly
- Karli Watson, David Espinosa, Zach Greenvoss, Beginning Visual C#, WroxPublication
- Peter D, Blackburn, William, ADO. NET Examples and Best Practices for C# Programmers, APress

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