

UNIVERSITY OF MADRAS

B.Sc. DEGREE PROGRAMME IN COMPUTER SCIENCE

SYLLABUS WITH EFFECT FROM 2023-2024

Year: III

Semester: VI

Semester VI		Semester VI
Programming in ASP.NET Common for B.Sc.-SA , B.Sc.-CSc		325C6A
Credits 4	Lecture Hours:6 per week	
Learning Objectives: (for teachers: what they have to do in the class/lab/field)		
• To develop ASP.NET Web application using standard controls. • To create rich database applications using ADO.NET. • To implement file handling operations. • To utilize ASP.NET security features for authenticating the web site. • To handles SQL Server Database using ADO.NET.		
Course Outcomes: (for students: To know what they are going to learn)		
CO1: To identify and understand the goals and objectives of the .NET framework and ASP.NET with C# language.		
CO2: To develop web application using various controls		
CO3: To analyse C# programming techniques in developing web applications.		
CO4: To assess a Web application using Microsoft ADO.NET.		
CO5: To develop a software to solve real-world problems using ASP.NET		

Units	Contents
I	Overview of .NET framework: Common Language Runtime (CLR), Framework Class Library- C# Fundamentals: Primitive types and Variables – Operators - Conditional statements -Looping statements – Creating and using Objects – Arrays – Stringoperations.
II	Introduction to ASP.NET - IDE-Languages supported Components -Working with Web Forms – Web form standard controls: Properties and its events – HTML controls -List Controls: Properties and its events.
III	Rich Controls: Properties and its events – validation controls: Properties and its events– File Stream classes - File Modes – File Share – Reading and Writing to files – Creating, Moving, Copying and Deleting files – File uploading
IV	ADO.NET Overview – Database Connections – Commands – Data Reader - Data Adapter - Data Sets - Data Controls and its Properties - Data Binding
V	Grid View control: Deleting, editing, Sorting and Paging. XML classes – Web form to manipulate XML files - Website Security - Authentication - Authorization – Creating a Web application

Recommended Texts

1. SvetlinNakov,VeselinKolev& Co, Fundamentals of Computer Programming with C#,Faber publication, 2019.
2. Mathew, Mac Donald, The Complete Reference ASP.NET, Tata McGraw-Hill ,2015.

Reference Books

1. Herbert Schildt, The Complete Reference C#.NET, Tata McGraw-Hill,2015.
2. Kogent Learning Solutions, C# 2012 Programming Covers .NET 4.5 Black Book, Dreamtech pres,2013.
3. Anne Boehm, Joel Murach, Murach's C# 2015, Mike Murach& Associates Inc. 2016.
4. DenielleOtey, Michael Otey, ADO.NET: The Complete reference, McGraw Hill,2008.
5. Matthew MacDonald, Beginning ASP.NET 4 in C# 2010, APRESS,2010.