

UNIVERSITY OF MADRAS

B.Sc. DEGREE PROGRAMME IN COMPUTER SCIENCE

SYLLABUS WITH EFFECT FROM 2023-2024

Year: III

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) <ul style="list-style-type: none">• 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.