

16MA303	EXTREME PROGRAMMING		
Course Pre-requisites: Basics of object oriented programming			
Course Objectives:			
<div><div></div><div>1. to gain knowledge on object-oriented (class-based), and component-oriented programming developed by Microsoft within the .NET initiative</div><div>2. to build sample applications, where the student will get experience and be ready for large-scale projects in .NET.</div></div>			
Course Outcomes:			
Upon completion of the course, students shall have ability to			
<div><div></div><div>1. Have a working knowledge of object oriented concepts and how to implement them in a visual programming environment.</div><div>2. Develop and implement Web Applications, Windows-based Applications and XML Web Services with Microsoft Visual C# .NET and Microsoft Visual Studio .NET</div><div>3. Develop and implement data base applications using ADO.NET</div><div>4. To develop software components suitable for deployment in distributed environments using C#</div></div>			
Course Contents			
UNIT NO.	DESCRIPTION	TEXT BOOK	PAGES
I	Introducing C#, Understanding .NET	T1	11-18
	Overview of C#, Literals, Variables, Data Types, Operators, Expressions, Branching, Looping, Methods, Arrays	T1	18-168
	Strings, Structures, Enumerations.	T1	168-204
	Classes,Objects,Inheritance, Polymorphism	T1	212-266
	Interfaces, Operator Overloading	T1	275-307
	Delegates, Events, Errors and Exceptions,Threads.	T1	315-330
III	Building Windows Applications- Creating the Application-Adding a Binding Source 797 Controls-Docking and Anchoring-Data Binding-Event Handling	T2	327-357
	Accessing Data with ADO.NET-	T2	360-371
	LINQ and Databases	R1	265-297
IV	Programming Web Applications Using ASP.NET - Web Forms Fundamentals -Web Forms Events	T2	380-385
	Web Forms Life Cycle-Creating a Web Application-Code-Behind Files-Adding Controls Server Controls-Data Binding-Examining the Code- Adding Controls and Events	T2	385-407
	Programming Web Services.	T2	414-433
V	Assemblies, Versioning, Attributes, Reflection.	T2	441-466
	Viewing MetaData, Type Discovery, Reflecting on a Type.	T2	466-478
	Marshaling, Remoting.	T2	478-500
Total instructional hours:45			

TEXT BOOKS:

1. E. Balagurusamy, "Programming in C#", 3rd Edition Tata McGraw-Hill, 2010.
2. Jesse Liberty, "Programming C#", 2nd Edition, O'Reilly, 2005.

REFERENCE BOOKS:

1. Ian Griffiths, Matthew Adams, Jesse Liberty, "Programming C#", 6th Edition, O'Reilly, 2010.
2. Herbert Schildt, "The Complete Reference: C#", Tata McGraw-Hill, 2004.

WEB REFERENCES:

1. <https://channel9.msdn.com/Series/C-Sharp-Fundamentals-Development-for-Absolute-Beginners>
2. [https://msdn.microsoft.com/en-us/library/aa288436\(v=vs.71\).aspx](https://msdn.microsoft.com/en-us/library/aa288436(v=vs.71).aspx)