Course: 203: Programming in .NET

Course Code	**203**
Course Title	**Programming in .NET**
Credit	4
Teaching per Week	4 Hrs.
Minimum weeks per Semester	15 (Including Class work, examination, preparation, holidays etc.)
Review / Revision	June 2020
Purpose of Course	This course is an introduction to students to understand fundamentals of .NET technology. The course also gives students an idea about VB.NET Programming. The course also explains the concept of ASP.NET
Course Objective	1. To make students understand .NET Technology 2. To make students understand VB.NET Programming 3. To make students understand the importance of ASP.NET
Course Outcome	CO-1 Study .Net Architecture. CO-2- Design and develop console and window based .NET application. CO-3-To learn basic syntax and implement small applications in C# programming language. CO-4-Create and manipulate GUI components in C#. CO-5-Create applications in C# using Object Oriented Properties. CO-6-Design and implement Database connectivity using ADO.Net. CO-7-Identify and resolver problems in C# applications.
Mapping between COs with PSOs	
Pre-requisite	Nil
Course Content	**Unit1: Overview of Microsoft .NET Platform** 1.1 Introduction to Building Blocks of .Net Platform 1.2 Overview of .Net Assemblies 1.3 Common Type System 1.4 Common Language Specification 1.5 Common Language Runtime 1.6 Exploring an Assembly (ildasm) 1.7 Platform Independent Nature of .Net 1.8 Base Class Libraries **Unit2: Overview of C#** 2.1 Literals, Variables, Data Types 2.2 Operators 2.3 Expressions and Looping 2.4 Constants, Arrays, Array Class, List 2.5 String, String Builder 2.6 Boxing and UnBoxing 2.7 Events, Errors and Exceptions **Unit3: Object Oriented Aspects of C#** 3.1 Creating Classes, Encapsulation, Object Construction & Destruction 3.2 Inheritance 3.3 Polymorphism 3.4 Abstraction 3.4 Interfaces and Abstract Classes 3.5 Delegates

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO1	■		■	■			■	
CO2	■		■	■		■	■	
CO3	■	■		■		■	■	
CO4	■			■		■		
CO5				■	■	■	■	
CO6			■	■		■	■	
CO7		■	■	■	■		■	■

	Unit4: Application Development 4.1 Creating Windows Forms with Events and Controls 4.2 Menu Creation 4.3 Inheriting Windows Forms 4.4 SDI and MDI Application 4.5 Dialog Boxes (Modal and Modeless) 4.6 Validating Controls **Unit5: Accessing Data** 5.1 ADO.Net 5.1.1 Data Adapter 5.1.2 Data Set 5.1.3 Typed Data Set 5.2 Using Stored Procedures 5.3 Handling Exceptions 5.4 LINQ [Self Study] Report Generation, Deployment
Reference Books	1. .NET Framework Essentials, Hoand Lam, Thuan L. Thai, O'REILLY 2. Microsoft .NET Framework 4.5 Quickstart Cookbook, Jose Luis Latorre Millas, PACKT Publishing 3. Pro C# 5.0 and the .NET 4.5 Framework, Andrew Troelsen, Apress 4. C# IN DEPTH, Jon Skeet, Manning Publications 5. Beginning C# 7 Programming with Visual Studio 2017, Benjamin Perkins, wrox 6. Illustrated C#, Daniel Solis, Cal Schrotenboer, Apress 7. The C# Programmer's Study Guide, Ali Asad, Hamza Ali, Apress
Teaching Methodology	Class work, Discussion, Self-Study, Seminars and/or Assignment
Evaluation Method	30 % internal assessment and 70% external assessment