

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

ADD-ON DIPLOMA COURSES

IT-AD01: ADD-ON DIPLOMA IN VISUAL BASIC .NET

Objective: To provide students with the knowledge and skills needed to develop applications in Microsoft Visual Basic .NET for the Microsoft .NET platform. This course is designed to serve as the basic course for .NET courses

Eligibility: Passed 10+2 examination and proficiency in computer Programming (C language) and Database Management System.

Reservation: SC/ST/OBC as per university rules.

Duration: One year part time, 80 hrs of teaching

Fee: Regular students from Constituent colleges: Rs 2000/- for students of courses where add-on courses are compulsory, Rs 2500/- for others. Students from other institutions: Rs 3000/-

Seats: Thirty . The course will be offered only against admission of a minimum of 15 candidates

Examination: Examination will be conducted by a board consisting of an internal examiner and an external examiner on the basis of a MCQ on-line /off-line test of 1 hr duration (50 questions, 100 marks) and practical test of 3hrs (100 Marks). Total marks of the examination will be 200. Rs 200/- per candidate will be collected by the computer center towards the MCQ based OMR/Online test in addition to the university examination fee.

In order to be eligible for the Diploma, a candidate is required to score 50% of the total marks. Those who fail to get 50% marks will be required to reappear in the examination as and when conducted by the university. A Certificate will be awarded instead of Diploma to the candidates who are allowed to take this course independently, not as an Add-on course

Syllabus

IT-AD01: Visual Basic .NET Programming

Basic .NET Concepts, Exploring the Development Environment, Creating a Visual Basic .NET Project, Forms and Controls: Understanding Programming Concepts, Working with Windows Forms, Working with Controls, Styling Your Code Variables and Arrays: Introduction to Data Types, Using Variables, Variable Scope, Converting Data Types, Creating and Using Structures, Storing Data in Arrays

Creating and using Forms: Creating Procedures, Using Procedures, Using Predefined Functions

Decision Structures and Loops: Using Conditional Expressions, Using Decision Structures, Using Conditional Loop Structures: **Validating User Input:** Restricting User Input, Validating Field Data, Validating Form Data

Object-Oriented Programming in Visual Basic .NET: Understanding Classes, Working with Classes, Using Shared Members, Inheritance, Polymorphism, and Namespaces, **Handling Errors and Exceptions:** Types of Errors Using the Debugger Handling Exceptions, **Enhancing**

the User Interface: Creating Menus, Creating Status Bars, Creating Toolbars

Web Forms and XML Web Services Working with Web Forms, Using XML Web Services, ADO.NET: Overview of ADO.NET Working with Data. Introduction to Deployment Deploying a Windows-based Application

Practical

Exercise 1: Creating Your First Application in Visual Basic .NET, Exercise 2: Creating the Main Form, Exercise 3: Using Static Variables, Exercise 4: Creating, Using, and Converting Variables, Exercise 5: Creating a Structure, Exercise 6: Creating and Using Arrays Exercise 7: Creating Functions in a Module Exercise 8: Working with the Main Form, Exercise 9: Checking User Input, Exercise 10: Validating User Input. Exercise 11: Creating a Derived Form Class, Exercise 12: Using Try...Catch Blocks, Exercise 13: Using Try...Catch...Finally Blocks, Exercise 14: Creating the User Interface, Exercise 15: Using XML Web Services, Exercise 16: Using the Data Form Wizard and setup wizard, Minor project.

Reference books

1. Programming Microsoft Visual Basic .NET (Core Reference) by Francesco Balena
2. Microsoft Visual Basic .NET Language Reference by Microsoft Corporation