

Mercer County Community College

Division of Business and Technology

IST 223

ADVANCED PROGRAMMING VISUAL BASIC.NET

COURSE DESCRIPTION

Students learn how to use ADO.NET DataSets and how to build a Data-Bound application. Students also build Windows services, MDI applications and build reports using Crystal Reports. Also covers security issues in the .NET environment and how to deploy VB.NET applications. Visual Basic .NET programmers will be developing more advanced applications.

Text (s):

Recommended Supplementary Texts From The Library:

Prerequisite: **IST 123** Intermediate Programming in Visual Basic.NET

Co-requisites: **None**

Credits: **3**

Lecture Hours: **2**

Laboratory Hours: **2**

Food and drink are strictly prohibited in classrooms as per health and safety laws. Students may not bring in chemicals or cleaning fluids without the appropriate MSD sheets.

Course Coordinator: **Winston H. Maddox**

test Review: **Fall 2003**

I. COURSE OBJECTIVES

In this course students will learn how to use ADO.NET DataSets and how to build a Data-Bound application. Students will also build Windows services, MDI applications and build reports using Crystal Reports. This course also covers security issues in the .NET environment and how to deploy VB.NET applications. Visual Basic .NET programmers who will be developing more advanced applications.

II. TESTS

There will be given a minimum of six tests/mini programs. Each test may contain sentences completion, interpretation of a flowchart and/or program, and may require the writing of a program or program element.

III. QUIZZES

Students should expect a brief quiz each week based upon the previous lecture and reading assignment.

IV. LABORATORY

Students will be given a minimum of six projects to introduce the programming environment to provide reinforcement of material presented in lecture. All assignments will have deadlines.

V. LABORATORY EVALUATION

Laboratory/Projects Report Scoring Guide

Scoring Standard

You must achieve a rating of at least “2” or “yes” on each criterion to demonstrate competence. Work receiving a “no” will not be evaluated further until corrected, and points may be deducted on a resubmission.

Rating Scale

- 3: Exceeds criterion by showing creativity, insight, precision, or thoroughness
- 2: Meets criterion at a minimum level of competence
- 1: Does not meet criterion
- 0: Item is missing, inappropriate, or incorrect

SCORING GUIDE FOR LABORATORY ASSIGNMENTS

Criteria	Ratings			
Lab report includes a title page with the title of the project/assignment, the date it was performed, and the names of the people who conducted the experiment	Yes	no		
Lab report includes an overview of the procedure used for the lab	3	2	1	0
Lab report includes <i>Design of user interface, Plan the properties, Plan the Basic code</i>	3	2	1	0
Lab report includes a summary of results chart, graph, or drawing	3	2	1	0
Lab report includes a description of the conclusions you drew and why	3	2	1	0
Lab report includes an appendix of supporting documentation	3	2	1	0
Lab report is word processed	Yes	no		
Lab report is well organized: sections are clearly marked with appropriate headings	3	2	1	0
Lab report uses appropriate scientific vocabulary	3	2	1	0

Electronic Presentation Scoring Guide

Scoring Standard

Student must receive a rating of at least “1” on each criterion to demonstrate competence.

Rating Scale

2 = Exceeds criterion

1= Meets criterion

0= Does not meet criterion

Scoring Guide for Presentations

Criteria	Ratings		
➤ Presentation includes a minimum of [SPECIFIC NUMBER] Slides	2	1	0
➤ Presentation includes a variety of text, graphics, clip art, and sounds	2	1	0
➤ Presentation has a professional look with an overall graphic theme	2	1	0
➤ Presentation slides are visually neat and incorporate a variety of layouts	2	1	0
➤ Slides uses text, graphics, sounds, and transitions that compliment the information being shared	2	1	0
➤ Presentation fonts and transitions are consistent from slide to slide	2	1	0
➤ Presentation sounds add to the overall show; not detract from it	2	1	0
➤ Graphics and clip art are visually appealing; not overdone	2	1	0
Content			
➤ Presentation includes a clear introduction, body, and conclusion	2	1	0
➤ The amount of information presented is sufficient for the topic	2	1	0
➤ Information is well-researched, well-written, and well-organized	2	1	0
➤ Information is directly related to the topic	2	1	0
➤ Information is relevant and interesting	2	1	0
Communication			
➤ You maintain eye contact with the group	2	1	0
➤ You deliver information clearly	2	1	0
➤ You use the slides as presentation guides and add to them verbally as necessary	2	1	0
➤ You provide slide handouts	2	1	0

VI. FINAL GRADE

The final grade is a composite based upon:

Tests (Theory/projects/both)	40%
Laboratory Major Projects (class)	30%
Midterm Examination	5%
Final Examination	15%

Advanced Visual Basic .NET

In this course students will learn how to use ADO.NET DataSets and how to build a Data-Bound application. Students will also build Windows services, MDI applications and build reports using Crystal Reports. This course also covers security issues in the .NET environment and how to deploy your VB.NET applications. Visual Basic .NET programmers will be developing more advanced applications.

Prerequisites: **Visual Basic .NET or univalent**

Programming experience. Creating Data-Bound Applications

- Data Binding Basics
- Using the Data Form Wizard

Introduction to ASP.NET

- A Review of Classic ASP
- ASP.NET Web Applications
- Rendering HTML with Server Controls
- Using ASP.NET to Deliver XML Web Services

Managing Data with ADO.NET DataSets

- The Role of DataSets in ADO.NET
- Using DataSets in ASP.NET
- Saving DataSets in Session State
- Using DataTable Constraints and DataSet DataRelations
- Using DataSets with DataAdapters to Modify Data
- The Transactional Model in DataSets
- DataSets and XML
- Typed DataSets

Creating Windows Services

- Introducing Windows Services
- Building Your First Windows Service
- The FileWatcher Service

Creating and Consuming XML Web Services

- The Motivation for XML Web Services
- Creating an XML Web Service with Visual Studio .NET
- Designing XML Web Services
- Creating .NET Consumers
- Web Services and Legacy Clients
- Discovering Web Services Using UDDI

Data Binding Techniques

- Synchronizing Multiple DataGrid Controls
- Formatting a DataGrid Control
- Limit Editing in a DataGrid
- Working with the ListBox Control
- Working with Binary Data

Security

- Overview of Security in .NET
- Permission Requests
- Using Role-Based Security

Multiple Document Interfaces (MDI) and Graphics (GDI+)

- Creating MDI Applications
- The Scribble Application
- Drawing on Forms
- Creating Transparent Areas in Forms
- Creating Shaped Forms

Deployment

- Deployment Concepts
- Simple Deployment
- Windows Installer Deployment
- HTTP Deployment

VII. ACADEMIC INTEGRITY STATEMENT

A student who a.) knowingly represents work of others as his/her own; b.) uses or obtains unauthorized assistance in the execution of any work; or c.) gives fraudulent assistance to another student is guilty of cheating. Violators will be penalized.” (Student Handbook)

VIII. CLASSROOM CONDUCT STATEMENT

It is the students’ responsibility to attend all of their classes. If they miss a class meeting for any reason, students are responsible for all content that is covered, for announcements made in their absence, and for acquiring any materials that may have been distributed in class. It is expected that students be on time for all their classes. If students walk into a class after it had begun, it is expected that they choose a seat close to where they entered the room so they do not disrupt the class meeting.

Students are expected to follow ordinary rules of courtesy during class session. Engaging in private, side conversations during class time is distracting to other students and to the instructor. Leaving class early without having informed the instructor prior to class is not appropriate. Unless there is an emergency, leaving class and returning while class is in session is not acceptable behavior. Disruptive behavior of any type, including sharpening pencils during class while someone is speaking, is not appropriate.

The college welcomes all students into an environment that creates a sense of community and pride and respect; we are all here to work cooperatively and to learn together.