COURSE OUTLINE

MS Applications Using Visual Basic
Course Title

IT 210
Dept. & Course No.

I. COURSE DESCRIPTION

This course covers how to write custom programs that link with other software. Topics include linking to other Windows applications, manipulating databases, and handling run-time errors.

II. SEMESTER CREDITS: 3

III. CONTACT HOURS PER WEEK: 2 Lecture 3 Lab 5 Total

IV. PREREQUISITE: IT 205

V. STUDENT LEARNING OUTCOMES:

Upon completion of this course the student will be able, with 65% level of accuracy, to:

1. Discuss the history of Basic, Microsoft, and Visual Basic for Applications.
2. Introduce the Visual Basic Editor environment.
3. Discuss the Object Model.

VI. COURSE CONTENT:

A. Discussing the history of Basic, Microsoft, and Visual Basic for Applications.
   1. Discussing the history of Basic and Visual Basic.
   2. Discussing the history of Microsoft.
   3. Introducing Visual Basic for Applications.

B. Introducing the Visual Basic Editor environment.
   1. Saving, running, and printing a procedure or function.
   2. Using Visual Basic Editor in Microsoft Word.
   3. Using Visual Basic Editor in Microsoft Excel.
   4. Using Visual Basic Editor in Microsoft Access.

C. Discussing objects and the Object Model.
   1. Recognizing objects.
   2. Identifying and calling objects in the program code.
   3. Using the Object Browser.
   4. Using the Immediate Window.

4. Discuss and utilize object variables.

D. Discussing, identify, and utilizing object variables.
   1. Determining when to use object variables.
   2. Selecting appropriate data types and names for object variables.
   3. Creating and utilizing object variables.
   4. Initializing object variables using the Set statement.

5. Discuss, define, and initialize String variables.

E. Discussing, defining and initializing String variables.
   1. Determining when to use String variables.
   2. Selecting appropriate names for String variables.
   3. Assigning values to String variables.
   4. Utilizing String concatenation.

6. Discuss and utilize Date variables.

F. Discussing and utilizing Date variables.
   1. Determining when to use Date variables.
   2. Selecting appropriate names for Date variables.
   3. Assigning values to the Date variables.
   4. Arranging Date variables using the Format Function.
   5. Utilizing Date variables in calculations.
   6. Converting Strings to Dates.

7. Discuss and utilize Numeric variables.

G. Discussing, identifying, and utilizing Numeric variables.
   1. Determining when to use Numeric variables.
   2. Selecting appropriate names for Numeric variables.
   3. Assigning values to Numeric variables.

8. Discuss and utilize Selection structures.

H. Discussing, recognizing, and utilizing Selection structures.
   1. Selecting areas to use Selection structures.
   2. Determining which Selection structure to use.
   3. Identifying comparison operators and generating logical statements to use with the Selection structures.

9. Discuss and use Repetition structures.

I. Discussing and using Repetition structures.
   1. Selecting areas to use Repetition structures.
   2. Determining which Repetition structure to use.
   3. Identifying comparison operators and generating logical statements to use with the Repetition structures.
   4. Selecting appropriate termination statements to use with Repetition structures.

10. Discuss and utilize error handling and trapping features.

J. Discussing and utilizing error handling and trapping features.
   1. Selecting areas to include Error handling and trapping statements.
   2. Identifying comparison and logic operations to use.
   3. Creating statements to catch, intercept, and handle errors.
   4. Selecting appropriate user feedback display.

11. Apply other built-in objects and features of Visual Basic for Applications.

K. Applying other built-in objects and features.
   1. Using built-in dialog boxes.
   2. Creating custom dialog boxes.
   3. Creating option buttons, check boxes, list box controls and other objects.
   4. Using Automation to control objects in other applications through Visual Basic for Applications.

VII. Equipment and Materials

A. Student computer with Windows OS and Microsoft Office
B. Projector
C. Routine classroom materials
D. 1 USB storage device (at least 1GB)—student-furnished

VIII. Text

A. Required Text:
Mansfield, Richard. Mastering VBA for Microsoft Office 2007. Wiley Publishing, Inc., 2008.

B. Supplementary References: handouts

IX. Methods of Instruction

A. Lecture
B. Demonstration
C. Hands on Experience
D. Questions and Answers (Discussion)

X. Method of Evaluation

A. Description	**Points**
Programming Assignments	20%
Quizzes / Exercises	20%
Chapter Tests	20%
Midterm Exam / Project	20%
Final Exam / Project	20%

Total----------100%

B. Transmutation of percent to letter grade

90-100----------A
80-89 ---------- B
70-79---------- C
65-69----------D
0-64---------- F

TASK LISTING SHEET

IT 210 MS Applications Using Visual Basic	Credits: 2	1	48
Course No. & Title	Lecture	Lab	Total Lab Hrs.

Task **Time**

SLO #2.....3 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Make changes to the code.
6. Save the changes.
7. Run the code.
8. Make corrections if necessary.
9. Print the program code.
10. Close the Visual Basic Editor window.
11. Close / Exit Microsoft Office application.

SLO #3.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Open the Object Browser window.
6. Open the Immediate window.
7. Insert objects and lines of code into the Immediate window.
8. Analyze the result of the Immediate window.
9. Apply the object and code to the program.
10. Run the program.
11. Make corrections if necessary.
12. Print the program code.
13. Save the changes.
14. Close the Visual Basic Editor window.
15. Close / Exit Microsoft Office application.

SLO #4.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Select scope for the object variables.
6. Declare and name the object variables.
7. Assign appropriate data type to the object variables.
8. Assign the object variables to existing objects.

9. Set or assign the values of the object variables.
10. Run the program.
11. Make corrections if necessary.
12. Print the program code.
13. Save the changes.
14. Close the Visual Basic Editor window.
15. Close / Exit Microsoft Office application.

SLO #5.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Select scope for the String variables.
6. Declare and name the String variables.
7. Assign appropriate data type to the String variables.
8. Set or assign the values of the String variables.
9. Use concatenation if necessary.
10. Run the program.
11. Make corrections if necessary.
12. Print the program code.
13. Save the changes.
14. Close the Visual Basic Editor window.
15. Close / Exit Microsoft Office application.

SLO #6.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Select scope for the Date variables.
6. Declare and name the Date variables.
7. Assign appropriate data type to the Date variables.
8. Set or assign the values of the Date variables.
9. Apply specific format to the Date variables values using the Format function.
10. Convert String values to Date values.
11. Use the Date values in calculations.
12. Run the program.
13. Make corrections if necessary.
14. Print the program code.
15. Save the changes.
16. Close the Visual Basic Editor window.
17. Close / Exit Microsoft Office application.

SLO #7.....5 hours

1. Open existing Microsoft Office file.

2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Select scope for the Numeric variables.
6. Declare and name the Numeric variables.
7. Assign appropriate data type to the Numeric variables.
8. Set or assign the values of the Numeric variables.
9. Run the program.
10. Make corrections if necessary.
11. Print the program code.
12. Save the changes.
13. Close the Visual Basic Editor window.
14. Close / Exit Microsoft Office application.

SLO #8.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Select areas to insert Selection structures.
6. Choose which Selection structure to use.
7. Identify comparison operators to use with the structures.
8. Insert the Selection statements with all necessary lines of code.
9. Run the program.
10. Make corrections if necessary.
11. Print the program code.
12. Save the changes.
13. Close the Visual Basic Editor window.
14. Close / Exit Microsoft Office application.

SLO #9.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Select areas to insert Repetition structures.
6. Choose which Repetition structure to use.
7. Identify comparison operators to use with the structures.
8. Insert the Repetition statements with all necessary lines of code.
9. Run the program.
10. Make corrections if necessary.
11. Print the program code.
12. Save the changes.
13. Close the Visual Basic Editor window.
14. Close / Exit Microsoft Office application.

SLO #10.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.

3. Open existing modules.
4. View existing program codes.
5. Select areas to insert error handling and trapping statements.
6. Identify comparison and logic operators to use with the statements.
7. Insert the error handling and trapping statements with all necessary lines of code.
8. Insert codes to display customized message boxes if error occurs.
9. Run the program.
10. Make corrections if necessary.
11. Print the program code.
12. Save the changes.
13. Close the Visual Basic Editor window.
14. Close / Exit Microsoft Office application.

SLO #11.....5 hours

1. Open existing Microsoft Office file.
2. Open the Visual Basic Editor window.
3. Open existing modules.
4. View existing program codes.
5. Open the Object Browser window.
6. Insert built-in dialog boxes.
7. Create custom dialog boxes.
8. Insert option buttons.
9. Insert check boxes.
10. Insert list box controls and other objects.
11. Create macros to automate repetitive actions / commands.
12. Attach the recorded macros to existing control objects.
13. Run the program.
14. Make corrections if necessary.
15. Print the program code.
16. Print the file.
17. Save the changes.
18. Close the Visual Basic Editor window.
19. Close / Exit Microsoft Office application.

TOTAL.....48 hours

Palau Community College
IT 210-MS Application Using Visual Basic
Course Learning Outcomes

During the course experience, the ***Course Learning Outcomes*** (CLOs) will be assessed through the use of signature assignments. A rating scale will be used to determine the students' proficiency level of each CLO using specifically aligned assignments. The numerical ratings of 4, 3, 2 and 1 are not intended to represent the traditional school grading system of A, B, C, D and F. The descriptions associated with each of the numbers focus on the level of student performance for each of the course learning outcomes listed below.

Rating Scale: **4----------Exceeds Expectations**
3----------Meets Expectations
2----------Developing
1----------Below Expectations

CLO #1:

Numerical Value	**Plan, design, and develop Word documents utilizing Visual Basic for Application functions and capabilities.**
4	Perform all of the following tasks accurately and completely: • Define and initialize all necessary variables. • Identify areas where selection structures are necessary and write syntactically and logically correct selection statements. • Identify areas where repetition structures are necessary and write syntactically and logically correct repetition statements. • Identify areas where error trapping and handling procedures are necessary and write syntactically and logically correct error handling statements.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

CLO #2:

Numerical Value	**Plan, design, and develop Excel workbooks utilizing Visual Basic for Application functions and capabilities.**
4	Perform all of the following tasks accurately and completely: • Define and initialize all necessary variables. • Identify areas where selection structures are necessary and write syntactically and logically correct selection statements. • Identify areas where repetition structures are necessary and write syntactically and logically correct repetition statements. • Identify areas where error trapping and handling procedures are necessary and write syntactically and logically correct error handling statements.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

CLO #3:

Numerical Value	**Plan, design, and develop PowerPoint presentations utilizing Visual Basic for Application functions and capabilities.**
4	Perform all of the following tasks accurately and completely: • Define and initialize all necessary variables. • Identify areas where selection structures are necessary and write syntactically and logically correct selection statements. • Identify areas where repetition structures are necessary and write syntactically and logically correct repetition statements. • Identify areas where error trapping and handling procedures are necessary and write syntactically and logically correct error handling statements.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

CLO #4:

Numerical Value	**Plan, design, and develop Access databases utilizing Visual Basic for Application functions and capabilities.**
4	Perform all of the following tasks accurately and completely: • Define and initialize all necessary variables. • Identify areas where selection structures are necessary and write syntactically and logically correct selection statements. • Identify areas where repetition structures are necessary and write syntactically and logically correct repetition statements. • Identify areas where error trapping and handling procedures are necessary and write syntactically and logically correct error handling statements.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.