SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE MARIE, ON

COURSE OUTLINE

Course Title: Advanced Visual Basic

Code No.: CSD300   **Semester**: Five

Program: Computer Programmer/Analyst

Author: Willem de Bruyne

Date: December 1999   **Previous Outline Date**: Sept. 1999

Approved: _____   _____
               Dean   **Date**

Total Credits: 5   **Prerequisite(s)**: CSD206, CSD204
Length of Course: 16 WKS   **Total Credit Hours**: 80

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I.   COURSE DESCRIPTION:

Advanced Visual Basic is an extension to the CDS206 Introduction to Visual Basic course.   More fundamental programming concepts are covered in this course, such as data arrays, and control arrays.   Two fundamental controls were left until after the data and control arrays were covered, they are; ListBoxes and ComboBoxes. These controls are better understood after array concepts are mastered.

The final part of the course will focus on data base applications and file handling.

The course focuses on hands-on, so there will be plenty of do-it-yourself features throughout the course.

1) Create one and multi-dimensional arrays.

Potential Elements of the Performance:

➢ Create and manipulate one-dimensional arrays; computing test averages, storing alphabetic data, finding the largest and smallest elements in a list, etc.
➢ Create and manipulate two-dimensional arrays; computing the average of two tests, creating a multi-dimensional budget
➢ Declaring array variables, using Dim, ReDim, and Static Statements

2) Create Control Arrays

Potential Elements of the Performance:

➢ Understand the four methods of creating a control array; cutting and pasting, using the same control name, changing index properties, creating control arrays with code,
➢ Experimenting with control arrays, using the index of a control array.
➢ Work through three examples of a control array.

3) Work with ListBoxes and ComboBoxes

Potential Elements of the Performance:

➢ Use ListBox properties at design and run time
➢ Add, remove and clear items in a ListBox
➢ Understand the ItemData and NewIndex Properties
➢ Work through examples of ListBoxes; selecting screen fonts, copying elements from one ListBox to another, perform computations.
➢ Create Drive ListBoxes, Directory ListBoxes, and File ListBoxes and manipulate their properties.   Con't….
➢ Create ComboBoxes; creating three styles

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➤ Manipulate the ComboBox properties and methods.

4) Manipulate Visual Basics Built-In Functions

Potential Elements of the Performance:

➤ Use the Financial functions to perform various calculations such as depreciation costs, loan payments, investment returns….
➤ Use the Date-Time functions
➤ Use the Math functions
➤ Use the String functions

5) Menus

Potential Elements of the Performance:

➤ Set a text box control's MultiLine and ScrollBars properties
➤ Code the Resize event
➤ Set the ScaleHeight and ScaleWidth properties
➤ Add a menu control to the form
➤ Access the Clipboard object using the Clear, GetText(), and SetText methods
➤ Select text with the SelText Property

6) Use the Data Control, Data Form Wizard, and Data Manager to manipulate DataBase Applications

Potential Elements of the Performance:

➤ Understand record structures, and record keys.
➤ Use the Data Control to view file records
➤ Use the Data Form Wizard to create database applications
➤ Use the Data Control Methods
➤ Use the Data Manager to create a new database file
➤ Perform error trapping, testing for blank fields, validating ranges and codes

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7) Create and Manipulate Sequential Files and Random Access and Binary Files

Potential Elements of the Performance:

➢ Create Sequential Files
➢ Use TexBoxes, CheckBoxes, and ListBoxes with Sequential Files
➢ Create Random Access Files
➢ Use Random Access Files, and commands
➢ Use Binary Files

7)   Create Crystal Reports

➢ Report Planning
➢ Creating a simple report
➢ Crystal Reports,: Basics
➢ Selecting Records
➢ Sorting and Grouping Records
➢ Graphing
➢ Use the Crystal Formula Language
➢ Create subreports
➢ Create Cross-Tab and Summary reports

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Application Programming in Visual Basic 5, by Mark Simkins

V.   EVALUATION PROCESS/GRADING SYSTEM

The mark for this course will be arrived at as follows:

Quizzes 5 @ 12%   = 60%
Assignments 3 @ 12% = 36%
Participation @ 4%   =   4%
                                  100%

Grading Scheme:

A+ 90–100% (Outstanding)
A 80–89% (Excellent)
B 70–79% (Average)
C 60–69% (Satisfactory)
R (Repeat)
X (Incomplete)

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VI.   SPECIAL NOTES:

- Students will receive a grade of zero for late assignments unless prior permission is granted from the instructor.

- **You must attain a minimum of 60% on your quizzes in order to receive a passing grade in this course**.

- Students are expected to attend classes on a regular bases and treat their peers and instructors in a business like manner.

- Students missing a test will receive a grade of zero unless prior permission is granted from the instructor.

VII.   PRIOR LEARNING ASSESSMENT

Students who wish to apply for advanced credit in the course should consult the instructor.