

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ON**

**COURSE OUTLINE**

**COURSE TITLE:** VISUAL BASIC

**CODE NO.:** GIS401

**SEMESTER:** 1

**PROGRAM:** G.I.S. SPECIALIST

**AUTHOR:** WILLEM DE BRUYNE

**DATE:** NOVEMBER 1998

**PREVIOUS OUTLINE DATED:** NEW

**APPROVED:**

K. DeBruyne  
DEAN

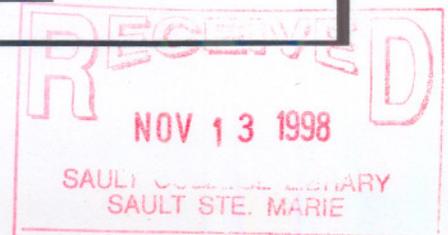
Nov. 11/98  
DATE

**TOTAL CREDITS** 3

**PREREQUISITE(S):** NONE

**LENGTH OF COURSE:** 15 Weeks **TOTAL CREDIT HOURS:** 30

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VISUAL BASIC  
COURSE NAME

GIS401  
CODE NO.

**I. COURSE DESCRIPTION:**

The course will overview the **TOOLS Visual Basic** has to offer, and how to incorporate the various components into Visual Basic applications. The course will focus on introductory application building. Once the student becomes familiar with Visual Basic's programming environment, they will be ready to create their own programs. The course will guide the students in comfortably creating a Visual Basic front end to a database application.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

(Generic Skills Learning Outcomes placement on the course outline will be determined and communicated at a later date.)

Upon successful completion of this course the student will demonstrate the ability to:

1) **DESCRIBE AND USE SOME ELEMENTARY COMPONENTS AND FUNCTIONS**

Potential Elements of the Performance:

- Describe what Visual Basic 5 is
- Demonstrate and use Visual Basic's main components
- Explain **Key Terms That Should Be Known**
- Design a User Interface
- Set Property Values
- Write Code and Run the Program
- Save, Open, and Modify a Project
- Print Form Image, Form Text, and Code

2) **EXPLAIN AND USE VISUAL BASIC'S FEATURES**

Potential Elements of the Performance:

- Explain the Visual Basic Objects
- Set Object Properties
- Describe Naming Conventions
- Use Font, Colour, Picture, Visible, and Enabled Properties

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE**  
**(Continued)**

**3) ALTER PROPERTIES AT RUN TIME**

Potential Elements of the Performance:

- Change Property Values With Code
- Perform Drag-and-Drop Techniques
- Use Special Techniques With Forms

**4) USE ADDITIONAL FEATURES OF VISUAL BASIC 5**

- Demonstrate How to Manage Controls
- Use the Command Buttons
- Create Labels
- Create Text Boxes
- Create Scroll Bars
- Create Input Boxes and Message Boxes

**5) DESCRIBE AND USE ACTIVE X CONTROLS**

Potential Elements of the Performance:

- Explain What Active X Controls Are
- Use a Variety of Controls

**6) EXPLAIN, DESCRIBE AND USE VARIABLES IN VISUAL BASIC**

Potential Elements of the Performance:

- Explain Variables and Values
- Explain Operators and Precedence
- Explain Variables and Data Types
- Describe the Scope of Variables
- Format Output Using the Above

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE**  
(Continued)

**7) USE VARIOUS FUNCTIONS IN DATABASE APPLICATIONS**

Potential Elements of the Performance:

- Describe the Nature of Computer Records
- Describe Record Structures and Keys
- Use the Data Control to View File Records
- Use the Data Form Wizard to Create Database Applications
- Use Data Control Methods
- Use the Data Manager to Create a New Database File

**III. TOPICS:**

**1) GETTING STARTED**

**6 HOURS**

- What is visual basic?
- Main components and key terms.
- Designing user interfaces.
- Setting property values, writing the code and running the program.
- Saving, opening and modifying a project.
- Printing

**2) VISUAL BASICS FEATURES**

**3 HOURS**

- Uses of objects and setting object properties.
- Naming conventions.
- Using various properties.

**3) ALTERING PROPERTIES AT RUN TIME**

**3 HOURS**

- Changing property values with code.
- Drag-and-drop techniques.
- Special techniques with forms.

**III. TOPICS (Continued):**

**4) ADDITIONAL FEATURES OF VISUAL BASIC 5 6 HOURS**

- Managing controls.
- Command buttons.
- Creating labels, text boxes and scroll bars.
- Creating input boxes and message boxes.

**5) ACTIVE X CONTROLS 3 HOURS**

**6) VISUAL BASIC VARIABLES 3 HOURS**

- Variables and their values.
- Operators and precedence.
- Variables and data types.
- Scope of variables.
- Formatting output.

**7) DATABASE APPLICATIONS 6 HOURS**

- Computer records.
- Record structures and record keys.
- Viewing file records.
- Creating database applications.
- Using data control methods.
- Using data manager.

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Applications Programming in Visual Basic 5, 2<sup>nd</sup> ed., Mark G. Simkin

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**V. EVALUATION PROCESS/GRADING SYSTEM**

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

Tests (3)	60%
Assignments	40 %
	100%

**LATE LABORATORY EXERCISES WILL BE DISCOUNTED**

The grading scheme used will be as follows:

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

**VI. SPECIAL NOTES:**

Special Needs

- If you are a student with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.

Retention of Course Outlines

- It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.

Substitute Course Information is available at the Registrar's Office.

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**VI. SPECIAL NOTES (Continued):**

- In order to pass this course the student must obtain an overall **test/quiz** average of 60% or better.
- Assignments must be submitted by the due date according to the specifications of the instructor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the instructor in cases where there were extenuating circumstances.
- The instructor reserves the right to modify the assessment process to meet any changing needs of the class. Consultation with the class will be done prior to any changes.

**VII. PRIOR LEARNING ASSESSMENT**

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