SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	**Advanced Visual Basic**
CODE NO. :	**CSD300** **SEMESTER:** **Four**
PROGRAM:	**Computer Programmer/Analyst**
AUTHOR:	**Willem de Bruyne**
DATE:	**Jan. 2009** **PREVIOUS OUTLINE DATED:** **Jan. 2008**

APPROVED:

"B. Punch"

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                           CHAIR   **DATE**

TOTAL CREDITS:	**5**
PREREQUISITE(S):	**CSD206, CSD204**
HOURS/WEEK:	**16 WKS Total Credit Hours: 80**

I. COURSE DESCRIPTION:

1. This course is an extension of the CSD206 Visual Basic introductory course that covered the basics of Visual Basic.NET programming. More advanced programming will be dealt with such as: Using Arrays and File Handling, Incorporating databases with ADO.NET 2.0, Multiple Classes and Inheritance, Creating Web Applications, and Cell Phone Applications and Web Services. The course focuses on hands-on, so there will be plenty of do-it-yourself features throughout the course.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Using Arrays and File Handling

Potential Elements of the Performance:

- Initialize an Array
- Initialize an Array with default values
- Access array elements using a loop
- Use ReDim to resize an array
- Initialize two-dimensional arrays
- Read a text file
- Calculate depreciation
- Use multiple Form objects
- Access Variable objects on other forms

2. Incorporating databases with ADO.NET 2.0

Potential Elements of the Performance:

- Understand database files
- Connect to a database using ADO.NET 2.0
- Use multiple database types
- Connect Form objects to the data source
- Bind database fields to the Window Form object
- Access database information on a Windows Form object
- Add & delete records
- Select records from a list
- Program beyond the Database Wizard
- Create the OleDbDataAdapter object
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3 . Multiple Classes and Inheritance

Potential Elements of the Performance:

- Use the TabIndex property
- Edit input, including a masked textbox, and combo box
- Describe the three-tier program structure
- Understand a class
- Create a class
- Instantiate an object
- Pass arguments when instantiating an object
- Write a class constructor
- Call a procedure in a separate class
- Code a base class and a subclass incorporating inheritance
- Call procedures found in a base class and a subclass
- Write overridable and overrides procedures
- Create and write a comm.-delimited text file

4 . Creating Web Applications

Potential Elements of the Performance:

- Create a Web application
- Build a Web form using ASP.NET 2.0
- Set Web form properties
- Add objects to a Web form
- Add a DropDownList object
- Add a Calendar object

- Add a custom table layout
- Validate data on Web forms
- Use the <br> tag in VB code
- Use String Manipulation methods in the String class

5   Cell Phone Applications and Web Services

<u>**Potential Elements of the Performance:**</u>

- Create a Smartphone application
- Use a cell phone keypad for input
- Enter input using a Smartphone
- Enter other characters using a keypad
- Add a Smartphone Toolbox objects
- Create softkey menu
- Code the Smartphone application
- Display MessageBox objects in a Smartphone environment
- Find Web services
- Create a Web service connection
- Call a Web service method
- Create a Crystal report
- Display a Crystal report

III.   TOPICS:

- Using Arrays and File Handling
- Incorporating databases with ADO.NET 2.0
- Multiple Classes and Inheritance
- Creating Web Applications
- Cell Phone Applications and Web Services

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

MICROSOFT Visual Basic 2005 for Windows, Mobile, Web, Office and Database Applications. Comprehensive   *Authors: Shelly, Cashman, Hoisington*

V.   EVALUATION PROCESS/GRADING SYSTEM:

The following semester grades will be assigned to students in postsecondary courses:

Quizzes 3   @ 20%
Attendance & Part.   @ 4%
Assign   3   @ 12%
                              100%

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00

CR (Credit)	Credit for diploma requirements has been awarded.
S	Satisfactory achievement in field /clinical placement or non-graded subject area.
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course without academic penalty.

VI.   SPECIAL NOTES:

Disability Services:
If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 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 postsecondary institutions.

Communication:
The main mode of communication will be via e-mail. I expect each student to check their college e-mail account a least twice per day.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Code of Conduct.* Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:
The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

♦   Students will receive a grade of zero for late assignments, or missed tests 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.

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of *<choose November, March, or June>* will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of *March* will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.