SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

SAULT
COLLEGE

CICE COURSE OUTLINE

COURSE TITLE: Business Applications I

CODE NO. : CSA103   **SEMESTER:** Winter
MODIFIED CODE: CSA0103

PROGRAM: Computer Programmer/Computer Programmer Analyst

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MODIFIED BY: Anthea Fazi, Learning Specialist CICE Program

DATE: Jan. 2015 **PREVIOUS OUTLINE DATED:** Jan. 2014

APPROVED: "Angelique Lemay"   Jan. 2015

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Dean, School of Community Services   **DATE**
and Interdisciplinary Studies

TOTAL CREDITS: 4

PREREQUISITE(S): NONE

HOURS/WEEK: 4

I.   COURSE DESCRIPTION:

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In this course the CICE students, with assistance from a Learning Specialist, will learn the basic features of Microsoft Excel and Access. CICE students will acquire a basic skill level in and be able to assist with the development of spreadsheet applications involving formulas and statistical charting as well as learn database concepts in order to develop small functional database systems. CICE students will be introduced to database design, table structures, forms, queries and reports. In addition, CICE students will be introduced to the basic SQL structure to generate queries from standard database applications.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Microsoft Excel 2010

With assistance from a Learning Specialist, the CICE student(s) will acquire a basic skill level to:

1. **Demonstrate an understanding of spreadsheet concepts, terminology and screen layouts.**

   Potential elements of performance*:*

- Learn the basic structure of a spreadsheet – rows, columns, cells
- Learn why spreadsheet applications are used
- Learn to use screen menus, shortcuts, options and toolbars
- Open and save workbooks and templates
- Enter labels and values
- Name, rename and move worksheets
- Preview and print a worksheet

2. **Demonstrate an understanding of how to use formulas and perform calculations.**

   Potential elements of performance*:*

- Plan and design a worksheet
- Edit cell entries
- Enter numbers and formulas
- Use formula functions
- Copy and move cell contents
- Apply absolute and relative addressing
- Copy formulas with both relative and absolute cell references

3. **Demonstrate an understanding of how to format a worksheet.**

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<u>Potential elements of performance</u>*:*

- Format values
- Use fonts and font sizes
- Change attributes and alignment
- Adjust column widths
- Use AUTOFORMAT
- Insert and delete columns and rows
- Apply colours, patterns, and borders
- Use conditional formatting
- Check Spelling

4. Demonstrate an understanding of how to create and edit charts.

<u>Potential elements of performance</u>*:*

- Plan and design a chart
- Create a Pie, Column and Bar chart
- Edit and make changes to charts
- Annotate and draw on a chart
- Preview and print a chart

5. Demonstrate an understanding of advanced features of formulas and functions.

<u>Potential elements of performance</u>*:*

- Create a formula with several operators
- Use names in a formula
- Generate multiple totals with AutoSum
- Use dates in calculations
- Build a conditional formula with the IF function
- Use statistical functions
- Calculate and print formula contents
- Freeze columns and rows
- Insert and delete worksheets
- Consolidate worksheets
- Hide and protect worksheet areas
- Control page breaks and page numbering
- Create a hyperlink between Excel files
- Save an Excel file as a Web page

6. Demonstrate an understanding of automating worksheet tasks.

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Potential elements of performance

- Plan, record, run and edit a macro
- Use shortcut keys with macros
- Use the Personal Macro Workbook
- As a macro as a menu item
- Create a toolbar for macros

Microsoft Access 2010

7.   Demonstrate an understanding of database concepts, terminology and screen layouts.

Potential elements of performance

- Understand Relational database structure and setup
- Add, delete and change records in a table
- Open a database and work with the database window
- Preview and print a datasheet

8.   Demonstrate the use of tables and queries.

Potential elements of performance

- Organize fields
- Plan, create and modify tables
- Format a datasheet
- Sort records and find data
- Filter records
- Create and modify queries

9.   Demonstrate the use of forms and reports

Potential elements of performance

- Plan and create a form
- Move and resize controls
- Modify labels
- Use text boxes for calculations
- Modify tab order

Potential elements of performance (cont'd)

- Enter, edit and print records

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- Insert an image
- Plan and create a report
- Use group sections
- Change sort order
- Add calculations
- Align and format controls
- Change page layout

10.   Demonstrate the ability to modify database structure.

Potential elements of performance

- Understand relational database components
- Create related tables using one-to-many relationships
- Create lookup fields
- Modify text, number, currency and date fields
- Modify field validation properties

11.   Demonstrate the ability to create multiple table queries

Potential elements of performance

- Build select queries
- Sort a query on multiple fields
- Develop AND and OR criteria
- Create calculated fields
- Build summary and crosstab queries

12.   Demonstrate the ability to create forms and subforms.

Potential elements of performance

- Understand the form/subform relationship
- Create subforms using both the Form Wizard and queries
- Modify subforms
- Add a combo box for data entry and to find records
- Add option groups
- Add command buttons

13.   Demonstrate an understanding of basic SQL commands.

Potential elements of performance

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- Define and use SQL with Access
- Create SQL standard queries using single and multiple tables
- Update, delete and change records
- Perform calculations using SQL
- Use SQL to sort records

14.   Demonstrate an understanding of Data Mining techniques

Potential elements of performance

- Define the role of Data Mining
- Search and analyze application databases for data extraction
- Parse data for export or import
- Export data to .CSV and Excel Formats
- Generate reports from selective mined data

III.   TOPICS

1. Basic Spreadsheet Concepts
2. Using Calculations and Formulas
3. Formatting The Worksheet
4. Using Charts
5. Advanced Formulas and Functions
6. Automating Your Worksheets
7. Understand Database Concepts
8. Working with Tables and Queries
9. Working with Forms and Reports
10. Modify Database Structures
11. Create and Use Multiple Tables
12 Creating Forms and Sub Forms
13. Create and Test basic SQL commands
14. Parse then export / import data from application databases

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

- Removable USB Hard Drive
- USB Flash Drive
- Web resources and lab materials will be provided by the Professor

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V.   EVALUATION PROCESS/GRADING SYSTEM:

Tests (3 Tests)	45%
Computer Labs, Quizzes and Assignments	45%
Attendance	10%

Some minor modifications to the above percentages may be necessary. The professor reserves the right to adjust the mark based upon leadership, creativity and whether there is an improving trend. Students must have passing grades in the tests/quizzes and assignments portion to pass the entire course.

All Assignments must be completed satisfactorily to complete the course. Late hand in penalties will be 5% per day. Assignments will not be accepted past one week late unless there are extenuating and legitimate circumstances.

The professor reserves the right to adjust the number of tests, practical tests and quizzes based on unforeseen circumstances. The students will be given sufficient notice to any changes and the reasons thereof.

A student who is absent for 3 or more times without any valid reason or effort to resolve the problem will result in action taken.

The following semester grades will be assigned to students:

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)	Below 50%	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.

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VI.   SPECIAL NOTES:

Attendance:
Absenteeism will affect a student's ability to succeed in this course. Absences due to medical or other unavoidable circumstances should be discussed with the professor. Students are required to be in class on time and attendance will be taken within the first five minutes of class. A missed class will result in a penalty in your marks unless you have discussed your absence with the professor as described above. The penalty depends on course hours and will be applied as follows:

Course Hours	Deduction
5 hrs/week (75 hrs)	1% per hour
4 hrs/week (60 hrs)	1.5% per hour
3 hrs/week (45 hrs)	2% per hour
2 hrs/week (30 hrs)	3% per hour

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.

Addendum:

Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

CICE Modifications:
Preparation and Participation

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.