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

COURSE OUTLINE

Course Title: **Microcomputer Applications**

Code No.: **CSA1010** **Semester:** **Two**

Program: **Computer Studies**

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Date: **Jan 2003** **Previous Outline Date: Jan 2002**

Approved: _____ _____
                  Dean   **Date**

Total Credits:

HOURS/WEEK 4 HOURS/WEEK   **Excel 35%**
                                      Access 65%

I .   COURSE DESCRIPTION :

In this course students will learn the basic to intermediate features of Microsoft Excel. Students will learn to develop sophisticated spreadsheet applications involving formulas and statistical charting.

A major component of this course will be to focus on database technologies. Students will learn database concepts in order to develop complex database systems . Students will be introduced to system design, table structures, forms, queries and reports in order to develop database applications.

In addition students will be introduced to the basic SQL structure to generate queries from standard database applications.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

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

     Potential elements of the performance:

- Learn the basic structure of a spreadsheet – rows, columns, cells
- Learn why spreadsheet applications are used.
- Learn to use screen menus, options and toolbars
- Learn formatting concepts and formulas

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

Potential elements of performance:

- Starting Excel
- Working with text in cells
- Working with numbers and formulas
- Using Formula Functions
- Copy cell contents
- Understand and use AUTOFORMAT
- Saving and Printing a spreadsheet
- Inserting Sheets, columns and rows
- Consolidating spreadsheets
- Absolute and relative addressing
- Database concepts and filtering

3 .   Demonstrate and understanding of how to create and edit charts

Potential elements of performance:

- Learn terminology and chart concepts
- Learn how to represent data with different chart types
- Create a Pie, Column and Bar chart
- Edit and make changes to charts
- Create charts on separate spreadsheet

The Excel section will constitute approximately 35% of the course grade

4   Demonstrate an understanding of database concepts, applications and terminology.

Potential elements of performance

- Learn what a database is comprised of and how used
- Understand keys, records, fields
- Understand Indexing concepts
- Define and use Single and Relational database
- Review screen layouts and toolbars
- Differentiate between a table and a database
- Define Forms, Queries and Reports

5   Demonstrate an understanding of how to create and maintain tables, generate reports, forms and queries.

Potential elements of performance

- Learn database structure and setup
- Create and save tables
- Add, Delete, Change records in a table
- Create charts from a table
- Linking Tables and Referential Integrity
- Creating Forms for data entry
- Create and run queries
- Create and run Parameter Queries
- Compound Queries and Sorting Data
- Setting Validation Rules
- Understand and use various field types
- Create and use Update Queries
- Create and use Index files
- Generate custom reports from tables and queries
- Adding images to records and using OLE
- Create and Use Sub forms
- Create and Use Macros
- Setting startup options
- Student Project – design a complete database application

6   Demonstrate an understanding of basic SQL commands

Potential elements of performance

- Define SQL
- Using SQL with Access
- Create SQL standard Queries
- Using Multiple Tables
- Update. Delete and Change records
- Perform calculations using SQL
- Using SQL to Sort records
- Using "IF" and "OR" SQL queries.
- Student project

This section represents 65% of the overall course mark.

III.   **TOPICS TO BE COVERED**

      TOPICS

      Basic Spreadsheet Concepts
      Using calculations and formulas
      Create and Use Charts
      Introduction to Database Concepts
      Working with tables, forms, queries and reports
      Basic SQL command structure

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

      McGraw-Hill
      Access 2002 Complete   ISBN#   **0-07-245904-2**

      Instructor Handouts

V   **EVALUATION PROCESS/GRADING SYSTEM :**

Excel   **Note ! Late Assignments will not be Accepted**

3 Assignments @ 5%		15%
1 Test	@ 20%	20%

Access **Note ! Late Assignments will not be Accepted**

4 assignments	@ 5%	20%
1 Test	@ 20%	20%
1 Project	@ 15%	15%

SQL   **Note ! Late Assignments will not be Accepted**

1 Assignments @ 5%		5%
1 Test	@ 5%	5%

                  TOTAL   100%

ATTENDANCE:

- In order to remain up to date with the delivery of course material students will be required to do the following:
    - o Be present for each class.
    - o Report to class within 5 minutes of the scheduled start time.
    - o Bring the required course text and resource materials.
    - o Sign the class attendance book at the beginning of each class.
- Any student who is absent for 3 or more times without any valid reason or effort to resolve the problem will result in either of :
    - a) marks being deducted
    - b) his / her removal from the course.

ASSIGNMENTS

- All Assignments must be completed satisfactorily to complete the course.
- Assignments will not be accepted past the designated due date unless there are documented, legitimate circumstances.

TESTS

- The professor reserves the right to adjust the number of tests, practical tests and quizzes. Students will be given prior notice to any changes.
- All course material (electronic lessons, classroom lectures, printed handouts etc…) are subject to evaluation and may be used in the creation of tests and quizzes. If not in class at the time of their delivery it will be the student's responsibility to obtain the information.
- Written tests will be conducted as deemed necessary; generally at the end of each block of work, and will be announced in advance.
- Quizzes may be conducted without advance warning.
- Students who are absent on the day of a test or quiz will be marked absent and given a failing grade for the evaluation.
- Students who provide a signed written statement that explains their absence (to the satisfaction of the course professor) will be granted a one time opportunity to write the missing test or quiz. This opportunity will be scheduled at the discression of the course professor.

Micro Computer Applications   **CSA1010**
         COURSE NAME   COURSE CODE

GRADING SCHEME

A+   90 – 100%   Outstanding Achievement
A   80 -   89%   Excellent achievement
B   70 -   79%   Average Achievement
C   60 -   69%   Satisfactory Achievement
U   Incomplete: Course work not complete at Mid-term. (Only used at mid-term)
R   Repeat
X   A temporary grade that is limited to instances where special circumstances have
        prevented the student from completing objectives by the end of the semester. An
        X grade must be authorized by the Chairman. It reverts to an R if not
        upgraded in an agreed-upon time, less 120 days.

UPGRADE OF INCOMPLETE WORK

- When a student's course work is incomplete or below 55%, there is the possibility of upgrading to a pass when the student's performance warrants it. Attendance and assignment completion will have a bearing on whether upgrading will be allowed.
- The method of upgrading is at the discretion of the teacher and may consist of one or more of the following options:
    - assigned make-up work
    - re-doing assignments
    - re-writing of tests
    - writing a comprehensive supplemental examination.
    - A failing grade will remove the option of any upgrading and an R grade will result.
    - Where a student's overall performance has been consistently Unsatisfactory, an R grade may be assigned without the option of make-up work.

VI.   SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 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 postsecondary institutions.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities*. 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, as may be decided by the professor. 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.

NOTE: The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and/or the class, as well as availability of resources. Substitute course information is available in the Registrar's office.

VII.   PRIOR LEARNING ASSESSMENT:

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

VIII.   DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.