

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title **INTRODUCTION TO COMPUTER APPLICATIONS**

Course No.: **CET110**

Program: **SCHOOL OF ENGINEERING TECHNOLOGY PROGRAMS**

Semester: **First (1)**

Date: **August 1995**

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Previous

Outline Dated: **JANUARY 1995**

APPROVED: *LP Cheyette* 95-08-29
Dean Date

Introduction to Computer Applications

CET 110

COURSE OUTLINE

PREREQUISITES: NONE

LENGTH OF COURSE: 3 HOURS PER WEEK comprised of:

- 1 - 1 hour theory class (combined sections)
- 1 - 1 hour lab class with instructor
- 1 - 1 hour lab class unsupervised

TOTAL CREDIT HOURS: 48

I. PHILOSOPHY/GOALS

This course is intended to provide for the student, the necessary skills related to **application software for the PC environment** (at the introductory post-secondary level). This course will discuss the similarities and differences in typical PC application software packages for wordprocessing and spreadsheet applications. The windows ver 3.1 operating system and the MS DOS operating systems will be studied. Two particular applications software packages: wordprocessing and spreadsheet analysis will be studied in-depth. For this course Sault College uses the licensed application software packages: WordPerfect 6.0 and 6.1 for Windows.; and Quattro Pro ver 5 (or QPro ver 6) for windows for spreadsheets. Several practical exercises will be completed which require the wordprocessing and spreadsheet software to provide solutions or **what if analysis** to a variety of typical problems in business or engineering environments. The student is expected to gain familiarity with the WP6.0 for

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windows and the QPro ver 5 (or ver 6) for windows packages if the student is already familiar with other wordprocessing or spreadsheet packages.

II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES)

At the end of this course the student will be able to:

1. Describe the general concepts encompassing the following generic application software packages: wordprocessing and spreadsheets.
2. Demonstrate proficiency in using the Windows (ver 3.1) operating system and the MS DOS ver 6.22 operating systems.
3. Demonstrate proficiency when utilizing a wordprocessing package (recommended package is WordPerfect 6.0 or 6.1 for windows).
4. Demonstrate proficiency when utilizing a spreadsheet package (recommended package is QPRO ver 5 (or ver 6) for windows spreadsheet software).

III. TOPICS TO BE COVERED

1. Generic application software packages: wordprocessing, spreadsheets,
2. Essential computer concepts
3. Effective file management
4. Wordprocessing document creation
5. Wordprocessing document formatting and editing
6. Wordprocessing additional editing features
7. Wordprocessing multiple-page documents
8. Spreadsheet uses
9. Notebook, planning, building, testing and documentation
10. Spreadsheet report formatting and printing
11. Spreadsheet functions, formulas and absolute references
12. Spreadsheet graphs and graph slide presentations
13. Wordprocessing and spreadsheet software integration.

IV. LEARNING ACTIVITIES / REQUIRED RESOURCES

LEARNING ACTIVITIES

1. Generic software application packages.

Upon successful completion of this unit, the student will be able to:

- a present a brief history of the most popular wordprocessing and spreadsheet programs.
- b explain why software programs are dependent on the operating systems and hardware constraints.
- c decide which wordprocessing and spreadsheet package the student wishes to gain proficiency in using.

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2. Essential computer concepts

Upon successful completion of this unit, the student

will be able to :

- a describe the major components of a computer system
- b explain how data are represented by the binary number system and the ASCII code
- c discuss the difference between systems software and applications software
- d identify terms used to specify the capacity and speed of computer memory, processors and storage

Reference "Microsoft Windows 3.1 and DOS" EC 3-35

3. Effective file management

Upon successful completion of this unit, the student

will be able to :

- a use DOS commands HELP, DIR, EDIT, MD, FORMAT
- b create and discuss the uses of file names and subdirectories

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- c discuss Windows as a GUI (Graphical User Interface)
- d launch and exit Windows and applications
- e identify the various components of the Windows desktop, including title bar, control-menu box, window border and window corner tick marks
- f use Windows menus and explore Windows toolbars
- g open and close the File Manager
- h organize files and disks
- i demonstrate a knowledge of move, rename, delete, copy and backup

Reference "Microsoft Windows 3.1 and DOS" DOS 1-22

"Microsoft Windows 3.1 and DOS" WIN 1-64

4. Document creation

Upon successful completion of this unit, the student will be able to :

- a plan a document

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- b demonstrate the use of the Button bar, Power bar,
function keys, and pull-down menus
- c open edit and save a document
- d preview and print a document
- e discuss the use of the help feature

Reference "WordPerfect 6.0 for Windows" WP 3-52

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5. Document formatting and editing

Upon successful completion of this unit, the student

will be able to :

- a use font and margin changing, bolding, underlining
- b demonstrate the use of the speller, thesaurus and grammar checker
- c print multiple copies of a document

Reference "WordPerfect 6.0 for Windows" WP 53-105

6. Additional editing features

Upon successful completion of this unit, the student

will be able to :

- a align text flush right
- b centre text between left and right margins
- c use find and replace, select and "drag and drop"

Reference "WordPerfect 6.0 for Windows" WP 106-136

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7. Multiple-page documents

Upon successful completion of this unit, the student

will be able to :

- a demonstrate the use of centre top to bottom, tab setting, headers and footers

Reference "WordPerfect 6.0 for Windows" WP 137-180

8. Spreadsheet uses

Upon successful completion of this unit, the student

will be able to :

- a discuss the uses of spreadsheeting in business settings
- b set up and print a basic spreadsheet
- c discuss values, labels, formulas and functions used in a spreadsheet

Reference "Quattro Pro 5.0 for Windows" QP 3-40

9. Notebook planning, building, testing and documentation

Upon successful completion of this unit, the student
will be able to :

- a plan, document, build and test a spreadsheet /
notebook
- b copy cells information, insert rows, change column
widths and row heights
- c use the @SUM feature

Reference "Quattro Pro 5.0 for Windows" QP 41-102

10. Report formatting and printing

Upon successful completion of this unit, the student
will be able to :

- a change the font typeface, style and point size
- b align cell contents and format for number,
currency and percentages
- c add colour and line segments for emphasis

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- d preview and print in portrait and landscape orientation

Reference "Quattro Pro 5.0 for Windows" QP 103-144

11. Functions, formulas and absolute references

Upon successful completion of this unit, the student will be able to :

- a use the formulas @MAX, @MIN and @AVG
- b demonstrate and discuss the use of absolute references in formulas

Reference "Quattro Pro 5.0 for Windows" QP 145-186

12. Graphs and graphing

Upon successful completion of this unit, the student will be able to :

- a plan and construct graphs

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- b create and edit line and bar graphs
- c discuss effective uses of graph types

Reference "Quattro Pro 5.0 for Windows" QP 187-230

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13. Word processing and spreadsheet integration

Upon successful completion of this unit, the student

will be able to :

- a import spreadsheet documents and graphs into word processing documents
- b import word processing documents into spreadsheet documents

V. METHOD(S) OF EVALUATION

1. Tests

The student will be assessed through a series of three (3) written tests. Assignments must be completed and demonstrated and mark recorded before these tests will be given. Thus, individual students will be completing tests before other students depending upon mastery of the learning outcome, or time constraints. Students, are encouraged to offer "peer tutoring" to each other within the class, with significantly advanced skills students helping others less advanced in the class. All test questions are individualized and are of the same complexity, with the marking scheme and learning outcomes being tested stated on the test paper.

Each test will be weighted to 20% of the final mark. In all test situations the testing concept is: open book, using a computer, perform some tasks previously demonstrated in the assignment(s) within a defined time period. All tests are designed to be completed in less than 1 hour.

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The concept of "**outcome based learning**" has been incorporated into the evaluation system of this course. This implies that the student must **master** each of the defined outcomes in order to obtain credit in this course. Thus, failing one particular test or part of a test, means re-doing the test or part of the test again. The questions from the original test are altered in the re-test, however the testing procedure is measuring the same learning outcomes and these learning outcomes must be mastered. The test or re-test will be given when the student is "ready" and the instructor is available. For some students, a formal "peer tutoring" situation may constitute being "ready" for a test. Additionally, time permitting, the student may **contract** with the Professor for a specific grade, for example, what must be done and by when for an A+, an A, or a B grade. No A+ final grade is possible if a student contracts for an "X" grade after Dec 18/95, however the A, B or the C passing grades are possible.

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The entire class should have completed tests or assignments by certain milestone dates. The tentative dates for completion of the preceding assignments and tests are for the lab periods during the week of:

Test	Tentative Date	Concepts
1	Oct 9 - Oct 13/95	Windows ver 3.1 Operating System and wordprocessing
2	Nov 27- Dec 1/95	Wordprocessing and Spreadsheet
3	Dec 18 - Dec 21/95	Wordprocessing and Spreadsheet

Re-writes of tests

A re-write for a failing student is possible only if certain conditions are met. The student must have a formal peer tutoring arrangement made and verified. If the peer tutor is a classmate then a 100% performance during the re-write will translate into a further bonus of 2% for the peer tutor.

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The student will be assessed through a series of unannounced quizzes. The total weight of these quizzes are not to exceed 10% of the final mark. The student should expect an "easy" 2 minute, one or two word answer quiz every lecture. The only way to get permission to write a missed quiz is to agree to attend an extra hour outside of class to make up for the missed hour. In the past, students volunteered to attend another section's lab time and provide peer tutoring.

3. Assignments

The student will be assessed through a series of three lab assignments. Collectively these three (3) assignments will be weighted to 30% of the final mark.

4. Attendance

The student attending 15 out of the 16 lectures and labs offered, will receive a 2% bonus for excellent attendance.

Summary of Marking Scheme

*	1.	Tests	60%
	2.	Quizzes	10%
	3.	Assignments	30%

			100%
	4.	Attendance	2% bonus only

Some minor modifications to the above percentages may be necessary.

- * - All required assignments must be completed satisfactorily to take a particular test in this course. Late hand in penalties may be 5% per day. Assignments may not be accepted past one month late unless there are extenuating and legitimate circumstances.

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TENTATIVE SCHEDULE:

The following is provided as a reasonable guide to the time spent on each of the major areas in this course.

wordprocessing	32 HOURS
Spreadsheets	16 HOURS
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	48 HOURS

Course Grading Scheme

A+	90+	outstanding achievement
A	80 - 89	above average achievement
B	70 - 79	average achievement
C	55 - 69	satisfactory achievement
U		unsatisfactory given at midterm only
S		satisfactory given at midterm only
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 have the Dean's approval and has a maximum time limit of 120 days.

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VI. PRIOR LEARNING ASSESSMENT:

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

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VII. Required Student Resources

1. "Microsoft Windows 3.1 and DOS"
Publishers: Course Technology. ISBN 1-56527-238-2
2. "WordPerfect 6.0 for Windows"
Publishers: Course Technology. ISBN 1-56527-082-7
3. "Quattro Pro 5.0 for Windows"
Publishers: Course Technology. ISBN 1-56527-162-9
4. At least five (5) 3.5" high density floppy disks.

VIII. Additional Resource Materials

(available in college bookstore, Audiovisual Centre, and/or library)

There are many other books on operating systems, wordprocessing and spreadsheets,

1. Sault College Software Support:

WordPerfect notes
Lotus notes

2. Sault College bookstore sells the popular series:

MS DOS For Dummies
WordPerfect For Dummies
Lotus 123 For Dummies
Maran Graphics Series Computers Simplified, WordPerfect

3. Video Tapes:

Six Part TVO Series: Bits and Bytes
Spreadsheets
Advanced Spreadsheet and Programming
Word Processing 1
Word Processing 2
Word Processing 3
Computer Applications/Software Introduction
Applications
Electronic Publishing

Periodicals: PC Mag, Byte Mag, Computing Canada
Computers in Education
Computers in Nursing

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XI. SPECIAL NOTES

1. Students with special needs are encouraged to discuss required accommodations confidentially with the instructor.
2. Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.