SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: **MICRO COMPUTER APPLICATIONS**

Course No.:   **CET128**

Program: **COMPUTER ENGINEERING TECHNOLOGY**

Semester: **SECOND(2)**

Date: **JANUARY 1993**

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Previous
Outline Dated: **JANUARY 1992**

APPROVED: _L P Chayett_   93·01·08
            Dean   Date

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C O U R S E   O U T L I N E

PREREQUISITES:NONE

LENGTH OF COURSE:4 HOURS PER WEEK

TOTAL CREDIT HOURS:64

I.   PHILOSOPHY/GOALS

This course is intended to provide for the necessary skills related to application software for the PC environment. The course material will discuss the similarities and differences in typical PC application software. This will be accomplished through an in-depth study of a variety of applications in the areas of spreadsheet analysis, and database management. The representative software we will use to illustrate these applications will be dBASEIV (for database management) and LOTUS 123 (for spreadsheets). The student will also be expected to do an individual study of an Application software package not previously covered. The topic to be chosen is at the student's discretion but is subject to the Instructor's Approval.   The individual study is to build confidence, interest and good researching techniques that are essential to maintaining capabilities with the continual arrival of new Application Software and Computer technology.

With respect to Dbase IV and LOTUS 123 several practical exercises will be completed which apply these applications to a variety of typical problems. Also a series of practical and theory tests will be conducted to test the students' ability to use the applications efficiently.

II. PERFORMANCE OBJECTIVES

At the end of this course the student will:

1.   Understand the general concepts of Application Software.
2.   Appreciate the variety of software application programs available for the IBM PC and Compatible computers.
3.   Understand the similarities and differences between the different types of application packages.
4.   Demonstrate proficiency in LOTUS 123.
5.   Demonstrate proficiency in dBASE IV.
6.   Demonstrate some proficiency in the application software he/she studied.

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III. TOPICS TO BE COVERED

1. What is a Database?
2. Typical Applications of Databases.
3. Common features and components of a Database.
4. Specific details related to dBASE IV.
5. Programming with dBASE IV.
6. What are Spreadsheets?
7. Typical Applications of Spreadsheets.
8. Common features and components of Spreadsheets.
9. Specific details related to LOTUS 123.
10. Spreadsheet design and Macro Coding.

IV. LEARNING ACTIVITIES / REQUIRED RESOURCES

LEARNING ACTIVITIES

BLOCK 1   DBASE IV: DATABASE MANAGER

This block introduces students to dBASE IV as a representation of single-user data base management system software.

Students will be tested or will apply the following activities:

1. Introduction to database management concepts.
2. The essential concepts of database design.
3. Using the Control Centre.
4. Designing a Data Base FILE.
5. Add, Delete, Update and View Database records.
6. Using Memo Fields.
7. Creating and Modifying Queries.
8. Linking files to create VIEWS.
9. Using Forms and Reports.
10. Accessing the DOT PROMPT.
11. SORTING and INDEXING.
12. Using dBASEIV commands at the DOT PROMPT.
13. Creating a dBASEIV program.
14. Using the APPLICATIONS GENERATOR
15. Using SQL Commands.

REQUIRED RESOURCES

Instructor's Handouts, Guidance, and Material covered in the class and Labs.

Colantonio TEXT dBASEIV section pages db1 to db145

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IV. LEARNING ACTIVITIES / REQUIRED RESOURCES (Continued)

LEARNING ACTIVITIES

BLOCK 2   SPREADSHEET APPLICATIONS USING LOTUS 123

In this block, spreadsheet applications will be investigated using LOTUS 123.

Students will be tested on or will apply the following objectives:

1. Introduction to a spreadsheet (or worksheet).
2. Cursor control and keyboard functions.
3. Using Lotus 123 commands and menus. The function and use of each entry in the multi-level command menu will be studied.
4. Creating and copying formulas.
5. Modifying the spreadsheet: editing labels, correcting formulas, inserting rows and columns, deleting rows and columns.
6. Data formatting.
7. Graphing: be able to develop line, bar, XY, and pie graphs using available data to a desired specification.
8. Be able to save a graph for printing with PRINTGRAPH.
9. Be able to design an efficient, well documented spreadsheet to solve assigned problems.
10. FUNCTIONS: Be able to apply available functions to solve mathematical, statistical and financial problems.
11. MACROS: Be able to design, document and use keystroke macros to efficiently implement repetitive tasks in a spreadsheet.
12. Be able to develop spreadsheet applications to solve assigned problems.

REQUIRED RESOURCES

Instructor's Handouts, Guidance, and Material covered in the class and Labs.

Colantonio TEXT LOTUS section (selected pages as assigned by Instructor) (from L1 to L127)

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LEARNING ACTIVITIES

BLOCK 3: INDIVIDUAL STUDY OF AN APPLICATION PACKAGE NOT PREVIOUSLY DISCUSSED

This block provides the student the opportunity to study a particular package that he/she may be interested in. The main objective of this exercise is to provide confidence and good study techniques that will be most beneficial in the workplace. It also gives the student an appreciation that although they may not work specifically with the tools presented in this course, the approach can be used to learn other software particularly in the constantly changing technologies.

The student will be required to perform the following objectives:

1. Discuss and gain approval of topic from the Instructor.
2. Prepare a formal report on his/her findings (8 to 12 pages).

REQUIRED RESOURCES

Student will be expected to do individual research on topic with guidance from the Instructor.

VI. 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.

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VII.   ASSESSMENT

Theory Tests, Practical Tests and Quizzes   60%

Assignments   30%

* Seminar   10%

                                                 100%

* - Seminar must be completed, presented and submitted to pass the course.

Some minor modifications to the above percentages may be necessary. The instructor reserves the right to adjust the mark up or down 5% based on attendance, participation and whether there is an improving trend.

* - All Assignments must be completed satisfactorily to complete this 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.

TENTATIVE SCHEDULE:

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

DBASEIV   48 HOURS
LOTUS   16 HOURS
            _____

            64 HOURS

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VII.   **ASSESSMENT** (Continued)

   1.   **GRADING SCHEME**

A+	90	–	100%	Outstanding achievement
A	80	–	89%	Excellent achievement
B	70	–	79%	Average Achievement
C	55	–	69%	Satisfactory Achievement

   I   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 than 120
            days.

Where a student's overall performance has been
consistently unsatisfactory in the fifth semester, an R
grade may be assigned without the option to continue on
into the sixth semester of the course.

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VIII.   ASSESSMENT (Continued)

CRITERIA

1.   GRADING SCHEME

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A	80	–	89%	Excellent achievement
B	70	–	79%	Average Achievement
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