

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MICROCOMPUTER APPLICATIONS

Code No.: CET 128

Program: COMPUTER ENGINEERING TECHNOLOGY

Semester: SECOND

Date: WINTER 1989

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New: X Revision: -

Approved: L.P. Crozetta
Chairperson

Date: 89/01/04

MICROCOMPUTER APPLICATIONSGENERAL OBJECTIVES

The objectives of this course are to make the student knowledgeable about the present capabilities of PC applications software. This will be accomplished through an in-depth study of a variety of applications in the areas of database management, and spreadsheet analysis, using dBASE III PLUS and LOTUS 123. Practical exercises will be completed which apply these applications to a variety of typical problems. Also a series of practical tests will be conducted to test the students' ability to use the applications efficiently.

TEXTBOOKS:

1. "BUSINESS APPLICATIONS SOFTWARE FOR THE IBM PC"
- Alternate Edition by Lon Ingalsbe

ASSESSMENT:

| | |
|---|-----|
| Theory Tests, Practical Tests and Quizzes | 60% |
| Assignments | 30% |
| * Seminar (Oral and Written) | 10% |

- * - 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 4 major areas in this course.

| | |
|----------------|----------|
| LOTUS 123 | 25 HOURS |
| DBASE III PLUS | 35 HOURS |
| ----- | |
| | 60 HOURS |

CET128
SPECIFIC OBJECTIVES

BLOCK 1 LOTUS 123

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

Students will be tested on 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. Be able to use WINDOWS, ABSOLUTE ADDRESSES and NAMED RANGES.
11. FUNCTIONS: Be able to apply available functions to solve mathematical, statistical and financial problems.
12. DATABASE FILES IN LOTUS 123: Be able to use Lotus 123 for database management functions, including sorting and making database queries.
13. MACROS: Be able to design, document and use keystroke macros to efficiently implement repetitive tasks in a spreadsheet.
14. Be able to develop spreadsheet applications to solve assigned problems.

BLOCK 2 DBASE III PLUS: DATABASE MANAGER

This block introduces students to dBASE III as a representative of single-user data base management system software. This section will include the following topics:

1. Introduction to database management concepts.
2. The essential concepts of database design.
3. Creating and modifying a database.
 - a) Field types and their attributes.
 - b) Commands learned in this section include:
CLEAR, SET, HELP, USE, CLOSE, DISPLAY,
ASSIST, BROWSE, LIST, CREATE, DELETE, DIR,
DISPLAY STRUCTURE, DISPLAY STATUS, DISPLAY
MEMORY, EDIT, ERASE, GO, APPEND, LOCATE,
RECALL, PACK, REPLACE, MODIFY STRUCTURE,
CHANGE
4. Sorting or Indexing a Database.
 - a) Identify advantages and disadvantages of sorting and indexing a database.
 - b) Use SORT and INDEX commands including the use of multiple fields.
 - c) Use of related commands including: REINDEX, FIND, SEEK, SET INDEX TO.
5. Creating Reports
 - a) Create reports using the CREATE REPORT, MODIFY REPORT, and REPORT FORM commands.
 - b) Other commands include: SET PRINT, SET MARGIN, EJECT.
6. dBASE III programming with Command Files.
 - a) Creation of command files with MODIFY COMMAND
 - b) The use of editing keys in the DBASE III word processor.
 - c) The use of memory variables, mathematical, relational, logical and string operators.
 - d) The use of FUNCTIONS: EOF(), BOF(), UPPER, LOWER, RECNO.
 - e) Commands include : SET TALK, SKIP, RETURN, RUN, CANCEL, ACCEPT, INPUT, ?, ??, @, TEXT, SAVE TO, RELEASE, RESTORE, EXIT, COUNT, SUM, AVERAGE.
 - f) Program design and documentation.
 - g) Use Decision-making structures in dBASE III command files.
 - 1) DO WHILE ... ENDDO
 - 2) IF, ELSE ... ENDIF
 - 3) DO CASE ... ENDCASE
 - h) Use dBASE III Macros.
 - i) Use procedure files.
 - j) Identify the file extensions used in dBASE III by their function.
 - k) Debug command files.
 - l) Use the SET ... commands.
 - m) Exchange data with LOTUS 123 and word processors.
 - n) Identify enhancements available with dBASE III +.
 - o) Write efficient command files to solve typical dBASE III programming problems.

GRADING SCHEME

COURSE: CET128

1. TESTS

Written tests will be conducted as deemed necessary; generally at the end of each block of work. They will be announced about one week in advance. Practical on-line tests will be conducted in which time to complete the assigned problems will be a factor in the evaluation. Quizzes may be conducted without advance warning.

2. ASSIGNMENTS

Assignments not completed by the assigned due-date will be penalized by 5% per day late. All assignments must be completed satisfactorily to complete the course.

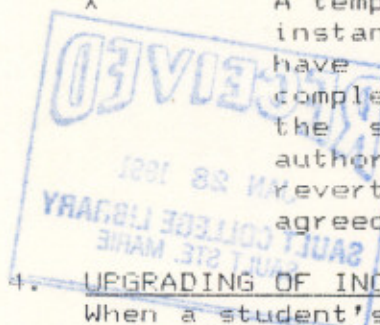
3. GRADING SCHEME

| | | | | |
|----|----|---|------|--------------------------|
| A+ | 90 | - | 100% | Outstanding achievement |
| A | 80 | - | 89% | Excellent achievement |
| B | 70 | - | 79% | Average Achievement |
| C | 55 | - | 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 Chairperson. It reverts to an R if not upgraded in an agreed-upon time, less than 120 days.



4. UPGRADING OF INCOMPLETE

When a student's course work is incomplete or final grade is 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. A failing grade on all tests will remove the option of any upgrading and an R grade will result. The highest grade on re-written tests or assignments will be 56%.

Where a student's overall performance has been consistently unsatisfactory, an R grade may be assigned without the option of make-up work.

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, or writing a comprehensive supplemental examination.