

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

COURSE OUTLINE

Course Title: MICROCOMPUTER SYSTEMS

Course No.: CET202-5

Program: COMPUTER TECHNOLOGY

Semester: THREE

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New: _____ Revision: X

APPROVED:

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Chairperson

Date

MS-DOS 2 WEEKS
DBASE III 2 WEEKS
LOTUS 123 4 WEEKS
WORDPERFECT 1 WEEKS
15 WEEKS

CET202

MICROCOMPUTER SYSTEMS

GENERAL 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, spreadsheet analysis, and word processing using dBASE III, LOTUS 123 and WORDPERFECT. 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. "USING DBASE III" by EDWARD JONES
2. "LOTUS 123 Simplified for the IBM Personal Computer" by Don Cassel

ASSESSMENT:

3 Theory Tests	35%
On-line Practical Tests	15%
Assignments	40%
Seminar (Oral and Written)	10%

Some minor modifications to the above percentages may be necessary.

TENTATIVE SCHEDULE:

The following is provided as a reasonable guide to the time spent on each of the 4 major areas in this course.

MS-DOS	2 WEEKS
DBASE III	6 WEEKS
LOTUS 123	4 WEEKS
WORDPERFECT	3 WEEKS

15 WEEKS

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SPECIFIC OBJECTIVES

BLOCK 1 MS-DOS

In this block, students will learn to use all MS-DOS commands appropriately, and will learn to work efficiently in a DOS environment. This block will be based primarily on a set of DOS COURSE NOTES. The commands and concepts to be learned will be grouped under the following headings:

1. Introduction to MS-DOS and the IBM PC.
2. File Handling and Disk Management
3. Utilizing Filters and Pipes
4. Managing Tree-structured Directory Systems
5. Managing Devices
6. Batch Files
7. Backup and Restore

BLOCK 2 DBASE III : DATABASE MANAGER

This block introduces students to dBASE III as a representative of single-user data base management system software. The text for this block is "Using dBASE III" by Edward Jones. 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.
 - a) 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.
 - 1) 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.

BLOCK 3 LOTUS 123

In this block, spreadsheet applications will be investigated using LOTUS 123. The reference will be "LOTUS 123 SIMPLIFIED FOR THE IBM PERSONAL COMPUTER", by DON CASSEL.

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.

LOTUS 123 OBJECTIVES (cont'd)

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 4: WORDPERFECT Word Processing

Depending on availability, this block will teach the use of WORDPERFECT word processing software in the creation, editing and printing of documents. Classroom notes and supplied reference material will be the reference for this block. (In the event that WORDPERFECT is unavailable, EASYWRITER II will be used.)

All of the major features and many of the secondary features will be studied and tested. A final list of features will be listed for testing purposes. The following is a tentative list:

1. Cursor control
2. Cut, copy, move and delete word, sentence, page, block
3. Text attributes: bold, underline
4. Case conversion
5. Saving, retrieving and viewing files
6. Column text (newspaper style documents)
7. Deleting text
8. Printer control and formatting
9. Page numbering
10. Headers and footers
11. Defining keystroke MACROS to implement user-defined functions
12. Margin control and indenting
13. Line drawing
14. Searching for (or replacing) text or control codes in a document
15. Sorting and merging
16. Using the Spelling checker
17. Using the Thesaurus
18. Creating a Table of Contents
19. Using Windows
20. Page size and format
21. Math mode

GRADING SCHEME

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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 10% per day late. All assignments must be completed satisfactorily to complete the course.

3. GRADING SCHEME

A	80	-	100%	Outstanding achievement
B	66	-	79%	Average Achievement
C	55	-	65%	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.			

4. UPGRADING OF INCOMPLETES

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.