Sault College
of Applied Arts and Technology
sault ste. marie

file

Course Outline

INTRODUCTION TO DATA
PROCESSING

EDP 100-5

revised _____ AUGUST 1981 _____

INTRODUCTION TO DATA PROCESSING
EDP 100-5

TIME: 5 periods per week for 1 semester

TEXT: Introduction to Computers & Data Processing -
Shelly & Cashman

AIM: This introductory course will be taken by all students
in Semester 1 of the Buisness Administration program.
Some of these students will decide to specialize in
Data Processing while others will choose one of the
other business options.

This course is intended to provide:

1. A grounding in Data Processing principles and
   methods which will be a pre-requisite to more
   advanced courses for those students electing
   to specialize in Data Processing.

2. An appreciation of Data Processing principles,
   methods & capabilities for those students who
   elect to specialize in an area other than Data
   processing.

3. Sufficient exposure to Data Processing to enable
   the student to decide whether his/her interest
   and/or aptitude lies in this area.

SPECIFIC OBJECTIVES:

A list of objectives for each topic in the course
is attached. These objectives represent minimum
requirements.

STUDENT EVALUATION:

The student's final grade will consist of the
following components:

TEST (2 x 15)	30%
QUIZZES (5 x 8)	40%
PARTICIPATION	30%
-case studies	
-computer programs	
-attendance	
	100%

STUDENT EVALUATION (cont'd):

1. Any student who fails to achieve 60% will be required to attend the make-up period at the end of the term in order to up-grade his/her grade.

2. Students wishing to receive better than C standing must demonstrate above average performance in each area to be graded.

3. Any student who fails to write a quiz or test at the time it is scheduled, must present a written excuse acceptable to the instructor.

4. Failure to complete any of the assigned computer programs on time will result in a mark of zero for that program.

5. Any student who consistently fails quizzes and/or tests, will automatically receive a final grade of R. In this case, the student will not be allowed to attend the make-up period.

6. Communication skills are very important in a business environment. For this reason, all work submitted will be graded for spelling, punctuation, sentence structure and clarity. A student's mark may be downgraded by as much as 20% for poor quality work in this area.

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REFERENCE	TOPIC #	TOPIC DESCRIPTION
TEXT - Chapter 1	A1	Introduction to Computers - data processing defined - what computers can do - the program & data - the computer system - the people & the equipment in the industry
TEXT - Chapter 2	A2	The Evolution of the Computer Industry - historical figures & early devices - data processing classifications - 4 generations of computers - programming language developments - hardware and software - new developments & the future
TEXT - Chapter 3	A3	The Processing of Data - Input/ Process/Output Cycle - Files, records, fields - arithmetic operations - logical operations - storage & retrieval of information - organizing & manipulating data
TEXT - Chapter 4		The Central Processor - components of the CPU - how data is stored & accessed - executing instructions - new technology
TEXT - Chapter 5		Computer Input - input media - batch & transaction - oriented input - preparation of data - dedicated & specialized input devices
TEXT - Chapter 6		Computer Output - types of output - types of printers - CRT's - reports (external) & internal output

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REFERENCE	TOPIC #	TOPIC DESCRIPTION
TEXT - Chapter 7		Storage - storage media - data access, retrieval, update - file organization methods - media for large & small computers
TEXT - Chapters 8, 9, 10		Familiarization with - data communications & multiprogramming - data base - "time sharing", "On Line" & "Real Time" processing - systems analysis & design

TEXT - Chapter 12		Programming Languages
		- common languages used
		- types of languages: assembler, compiler
		- steps in program development
		    - program design
		    - coding
		    - translation(compilation)
		    - testing(execution)
		    - documentation
		- operating systems

TEXT - Chapter 13		Computers in Society - technological changes - software developments - social & ethical implications

PART B - PROGRAMMING

Program Design using the BASIC Programming Language

PHASE 1:

To be an on-going learning process throughout the course - running concurrently with theoretical concepts. Simple applications and procedures using "hands-on"method.

REFERENCE: "Computer Programming in BASIC with Business Applications" - George Tsu-Der Chou

HASE 2:

Programming in BASIC using business applications. A minimum of four major program assignments to hand-in with appropriate documentation.

REFERENCE: "Introduction to Computers and Data Processing"
             Shelley and Cashman

REFERENCE	TOPIC #	TOPIC DESCRIPTION
Lecture Notes Cahpter 11 - TEXT	B1	Program Design - program specifications - flowcharting & other design tools - common design problems
Lecture Notes	B2	Elements of BASIC Programming - BASIC defined - program structure - statements & commands - constants & variables - expressions & operators - signing-on to the computer
Lecture Notes	B3	BASIC Commands - LIST - RUN - SCRATCH - SEQUENCE - LOAD - SAVE - NEW - OLD - REPLACE
Lecture Notes	B4	Computer Arithmetic & Program Management - REMark s statement - LET statement - PRINT statement - END statement
Lecture Notes	B5	Input-Output Statements - READ statement - DATA statement - INPUT statement - PRINT statement (with options)

REFERENCE	TOPIC #	TOPIC DESCRIPTION

Lecture Notes   B6   Control Statements
- branching & comparing
      GO TO
      IF . . . . THEN
      FOR

TEXT - Appendix A   B7   Programming Problems
- BASIC input/output operations
- BASIC arithmetic - accumulating totals
- Comparing
- Control Breaks

NOTE: During the course of the semester, additional objectives may be assigned.