

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

INTRODUCTION TO DATA PROCESSING

Course Outline:--

EDP100-5

Code No.:

BUSINESS (COMMON)

Program:

ONE

Semester:

September 1985

Date:

J. Mitchell

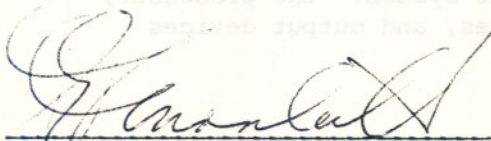
Author:

New: _____

Revision: _____

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APPROVED:


Chairperson

85-05-20
Date

INTRODUCTION TO DATA PROCESSING

EDP100-5

TIME: 5 periods per week for 1 semester

TEXT: Computer Fundamentals for an Information Age - Shelly & Cashman
Programming in BASIC: The First Steps - Robert G. Bell

AIM: This introductory course will be taken by all students in Semester 1 of the Business 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.

OBJECTIVES:

When this course is completed the student will be able to:

- (1) define data processing and discuss its importance in today's society
- (2) describe the three basic functions common to all data processing: input, processing, and output
- (3) describe the functional units of a computer system: the processor, primary and secondary storage, input devices, and output devices

OBJECTIVES (cont'd)

- (4) define the concepts of data and programs
- (5) describe the various people involved in a data processing environment: programmer, systems analyst, and user
- (6) differentiate between batch input and transaction input
- (7) carry out the steps necessary to use the computer as a problem-solving tool
- (8) discuss and create flowcharts to show the logic needed to solve a problem
- (9) write the BASIC programs necessary to solve a given problem

STUDENT EVALUATION:

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

Tests (4 @ 15%)	-	60%
Quizzes (5 @ 20%)	-	10%
Assignments (4 @ 5%)	-	20%
Case Study	-	5%
Class Involvement	-	5%
		<hr/>
		100%

ASSIGNMENT DEADLINES: Each assignment must be handed in ON TIME, otherwise they are subject to a 10% deduction per day late.

All assignments must be handed in before end of term, otherwise the student has not fully completed the course and is subject to receiving an "R" grade.

GRADING:

"A"	=	85 - 100%
"B"	=	70 - 84%
"C"	=	55 - 69%
"R"	=	0 - 54%

NOTE: A student will be allowed to do a re-write if:

- (1) he/she has a passing final grade and wants to better that grade
- (2) he/she does not have a passing final grade and this grade is 45% or better, and he/she has not failed more than two of the four tests given

If the student has written the re-write, his/her mark for the tests (i.e. mark out of 60) will now be assigned as follows:

$$[(\text{average of 4 tests} \times .5) + (\text{mark on re-write} \times .5)] \times \frac{60}{100}$$

Material to be Covered:

PART A: The following topics are referenced to ^{SLC} ~~Bohl~~:

<u>TOPIC</u>	<u>DESCRIPTION</u>	<u>REFERENCE</u>
1	<u>Introduction to Computers</u> - what is a computer - what computers can do - data processing defined - the people & equipment in the industry	Chapter 1
2	<u>Evolution of the Computer Industry</u> - historical figures & early devices - 4 generations of computers - programming language developments - new developments and the future	Chapter 1
3	<u>The Processing of Data</u> - input/process/output cycle - the program and data - files, records, fields - the computer system	Chapter 2
4	<u>Computer Input</u> - input media - input data representation - batch & transaction - oriented input - preparation of data - dedicated and specialized input devices	Chapter 5
5	<u>Computer Output</u> - types of output - types of printers - types of reports	Chapter 6

Material to be Covered (cont'd)

<u>TOPIC</u>	<u>DESCRIPTION</u>	<u>REFERENCE</u>
6.	<u>The Central Processor</u> - data representation in the computer - components of the CPU - how data is stored and accessed - executing instructions	Chapter 8
7	<u>Storing Data</u> - storage media - data access, retrieval, update - file organization methods	Chapter 9
8	<u>Familiarization with</u> - systems analysis and design - programming languages - operating systems - data communications	Chapter 15 Chapter 13 Chapter 14 Chapter 11

PART B: Programming: using the BASIC language
: to be an on-going learning processing throughout the course, running concurrently with theoretical concepts. Applications and procedures using the "hands-on" method.

<u>TOPIC</u>	<u>DESCRIPTION</u>	<u>REFERENCE</u>
1	<u>Introduction</u> - programming - computing - what you will be using - your workspace	Bell - Chapter 1 Pages 8-12
2	<u>Working with the Computer</u> - signing-on the computer - your password & how to change it - signing-off the computer	Bell - Chapter 2 Lecture notes
3	<u>BASIC Commands</u> - BASIC defined - commands: LIST RUN SCRATCH SEQUENCE LOAD SAVE NEW OLD REPLACE	Bell - Chapter 2 Lecture notes
4	<u>Writing a BASIC Program</u> - sequence numbers - adding, deleting, & changing lines - BASIC statements: LET PRINT END READ & DATA	Bell-chapter 2 -chapter 2 -chapter 4 -chapter 3 -chapter 2 -chapter 5,7

PART B (cont'd)

<u>TOPIC</u>	<u>DESCRIPTION</u>	<u>REFERENCE</u>
5	<u>Program Design</u> - program specifications - flowcharting - structured programming - documentation	Bohl-chapter Bell-chapter
6	<u>Control Statements</u> - branching and comparing - the GO TO statement - the IF statement	Bell-chapter

