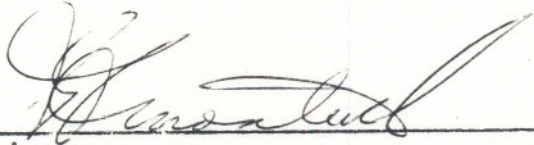SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: INTRODUCTION TO DATA PROCESSING

Code No.: EDP100-5

Program: BUSINESS (common)

Semester: ONE

Date: 1984 08

Author: DENNIS OCHOSKI

New: _____   Revision: __X__

APPROVED: _____   84.09.04
           Chairperson   Date

5 periods per week for one semester

Required Texts:

Information Processing - Marilyn Bohl

Programming in BASIC : the first steps - Robert G. Bell

Purpose:

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 and 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 apptitude 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 components:

Tests (4 @ 15%)	60%
Quizzes (5 @ 2%)	10%
Assignments (4 @ 5%)	20%
Case study	5%
Class involvement	5%
	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 to 100%
B -- 70 to 84
C -- 55 to 69
R -- 0 to 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 (ie. mark out of 60) will now be assigned as follows:

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

Material to be Covered:

PART A: the following topics are referenced in Bohl.

TOPIC	DESCRIPTION	REFERENCE
1	Introduction to Computers	Chapter 1

- what is a computer
- what computers can do
- data processing defined
- the people and equipment in the industry

TOPIC	DESCRIPTION	REFERENCE
2	Evolution of the Computer Industry	Chapter 1

- historical figures and early devices
- 4 generations of computers
- programming language developments
- new developments and the future

TOPIC	DESCRIPTION	REFERENCE
3	The Processing of Data	Chapter 2

- input/process/output cycle
- the program and data
- files, records, fields
- the computer system

concepts. ~~Applications and p~~
"hands-on: method.

TOPIC	DESCRIPTION	REFERENCE
1	**Introduction**	Bell - chapter 1
	- programming	p. 8-12
	- computing	
	- what you will be using	
	- your workspace	
2	**Working With the Computer**	Bell - chapter 2
	- signing-on the computer	Lecture notes
	- your password and how to change it	
	- signing-off the computer	
3	**BASIC Commands**	Bell - chapter 2
	- BASIC defined	Lecture notes
	- commands: LIST	
	RUN	
	SCRATCH	
	SEQUENCE	
	LOAD	
	SAVE	
	NEW	
	OLD	
	REPLACE	
4	**Writing a BASIC Program**	
	- sequence numbers	Bell - chapter 2
	- adding, deleting, and changing lines	chapter 2
	- BASIC statements: LET	chapter 4
	PRINT	chapter 3
	END	chapter 2
	READ and DATA	chapter 5,7
	INPUT	chapter 13
	REMarks	chapter 9
	- constants and variables	chapter 4
	- expressions and operators	chapter 4

TOPIC	DESCRIPTION	REFERENCE
5	<u>Program Design</u> - program specifications - flowcharting - structured programming - documentation	Bohl - chapter 12 Bell - chapter 8
6	<u>Control Statements</u> - branching and comparing - the GO TO statement - the IF statement	Bell - chapter 5,7