

Sault College
of Applied Arts and Technology
sault ste. marie

Course Outline

INTRODUCTION TO DATA PROCESSING

EDP 100-5

revised June 1975

INTRODUCTION TO DATA PROCESSING
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TIME: 5 periods per week - 4 classroom - 1 lab

AIM: This introductory course will be taken by all students in Semester I of the Business Administration program. At the end of this semester students will be required to choose an option from among Accounting, Business Data Processing or Finance/Retail Administration.

This course is intended to provide the following:

1. An introduction to the development of data processing and to the perspectives and issues associated with computerized data processing.
2. A general orientation to the computer - what it is, what it can and cannot do, how it operates, and how the programming process is carried out.
3. An insight into the broad impact that computers have had, are having, and may be expected to have on business, on people and on our society.

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EDP 100-5

Student Evaluation:

The students understanding of assigned readings and lecture material will be determined throughout the term by tests, assignments, computer programs and by over all class participation.

The students final grade will consist of the following components:

| | |
|---------------------|-------------|
| Test #1 | 15% |
| #2 | 15% |
| #3 | 15% |
| #4 | 15% |
| Computer programs | 20% |
| Class participation | 20% |
| | <u>100%</u> |

NOTE:

1. A student must achieve 60% of the possible marks on each component.
2. Any student whose over all average is less than 60% or who has failed to meet Note 1 on 2 or more occasions will receive an I grade. Attendance during the make-up period at the end of the semester will be required to up-grade this mark.
3. A grade of R may be assigned at any time during the term if a student has not met the intermediate objectives of the course.
4. Any student wishing to receive better than C standing must demonstrate above average performance in each area to be graded.

INTRODUCTION TO DATA PROCESSING
EDP 100-5

| <u>TOPIC NO.</u> | <u>REFERENCE</u> | <u>WEEK</u> | <u>TOPIC DESCRIPTION</u> |
|------------------|------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1 | Ch. 1 | 1 | <u>Introduction</u> <ul style="list-style-type: none">-purpose of course-what is Data Processing?-what is process data?-management information<ul style="list-style-type: none">-what is it?-where docs it come from?-why do we need it?-desirable characteristics for computer processing-objectives and benefits of data processing-basic data processing functions |
| A2 | Ch.2 | 2-3 | <u>The Data Processing Evolution</u> <ul style="list-style-type: none">-manual, mechanical and electro-mechanical calculating-development of the Punched Card Industry-development of the computer industry-the computer industry today - some facts and figures |
| A3 | Ch.3 | 3 | <u>The Information Revolution</u> <ul style="list-style-type: none">-technological social and economic change-computer technology<ul style="list-style-type: none">-hardware development-software development |
| A4 | Ch.4 | 4 | <u>Developments and Issues</u> <ul style="list-style-type: none">-quick response systems-broader systems-issues - invasion of privacy<ul style="list-style-type: none">- security of data- systems design- data communications |
| A5 | Ch.5 | 5-6 | <u>Introductory Computer Concepts</u> <ul style="list-style-type: none">-computer classifications-computer capabilities-computer limitations-computer organization |

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EDP 100-5

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|------------------|-----------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A6 | Ch. 8-9 | 7 | <u>Computer Data Representation</u> -concepts of storage -computer number systems -computer codes |
| A7 | Ch. 6-8 | 9-10 | <u>Input/Output</u> -the difference between media and devices -punched cards -punched paper tape -magnetic tape -direct-access devices -MICR -OCR -high speed printers -terminals -communication services |
| A8 | Ch. 13 | 12-13 | <u>Computer Implications for Management</u> -planning and decision making -organization -staffing -controlling -economic -social |
| A9 | Ch. 18 | 13-14 | <u>Computers and the future</u> -organizations and computers -individuals and computers |
| B1 | Ch. 2 | 3 | <u>The Punched Card</u> -design -Hollerith Coding System -System/3 Coding System -rules and definitions |
| B2 | Ch. 2 (supplement) | 4 | <u>Keypunching</u> -features -principles of operation -handling of cards -verifying |

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|------------------|------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B3 | Ch. 10 | 4 | <u>Programming Concepts</u> -steps in writing a program -flow charting -decision tables |
| B4 | Ch. 11 | 5 | <u>Program Preparation</u> -the computer instruction -languages for computers -program coding, testing and debugging -program documentation and maintenance |
| B5 | Ch. 12 | 6 | <u>Fortran Programming</u> -character set -coding formats -identifiers -statements -constants and variables -integer and real modes |
| B6 | Ch. 12 | 7 | <u>Fortran Programming (cont'd)</u> -comment statement -assignment statement -order of operations - arithmetic -initial value -call exit and end statement |
| B7 | Ch. 12 | 8 | <u>Fortran Programming (cont'd)</u> -write statement -format statement -headings -read statement -formatting - modes - literals - coninuation |
| B8 | Ch. 12 | 9 | <u>Fortran Programming</u> -unconditional branch -conditional branch -looping -totals |