

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: ELEMENTARY COMPUTER CONCEPTS

Code No.: EDP 235-3

Program: HOTEL AND RESTAURANT MANAGEMENT

Semester: THREE

Date: JUNE 1983

Author: JUNE DICKS

New: _____ Revision: X

APPROVED:


Chairperson

93 19 83
Date

CALENDAR DESCRIPTION

Elementary Computer Concepts

EDP-253-3

Course Name

Course Number

PHILOSOPHY/GOALS:

The student will understand and be able to demonstrate:

1. The use of data processing in the business environment.
2. The contribution of data processing to business decision making.
3. The various methods of computer-based data processing systems.
4. Elementary knowledge of programming the SuperPet microcomputer using a high-level programming language.
5. Comprehension of the impact of computers on everyday life.

METHOD OF ASSESSMENT (GRADING METHOD):

The student will be required to read the entire textbook. Semester tests, final examinations and homework assignments will require knowledge of its contents.

Homework assignments will usually be based on the study guide which accompanies the textbook. Other assignments will be given by the instructor which may include additional resources. Homework assignments will be collected on the assigned due dates for grading and returned to the student. Any other projects to be assigned will be collected, graded and returned in the same manner as homework assignments. No credit will be given for program assignments which fail to run correctly or which do not display the correct output.

Students who do not attend 75% of lecture classes will not be permitted to write the final examination.

SPECIFIC OBJECTIVES:

INTRODUCTION:

The student will identify the characteristics of the hardware and software resources available.

Identify the main events leading to present-day data processing methods.

Define the data processing needs that gave rise to technological improvement.

Discuss the interaction between demand for information and advances in technology.

THE INFLUENCE OF THE COMPUTER:

After completion of this section, the student will be able to:

- identify familiar present-day business problems and how computers are being used to solve them.
- discuss some of the principles of data processing as represented in a familiar place; the supermarket.
- demonstrate an understanding of how a supermarket system works, what it does, and how people are affected by it.

COMPUTERIZED BUSINESS SYSTEMS:

After completion of this section the student will be able to:

- identify the basic characteristics of computerized business systems and how they function.
- discuss the methods by which computers can be used to improve the overall business operation.
- demonstrate an understanding of the basic notions behind system design and analysis.

COMPUTER ANALOGY & BASIC ARCHITECTURE OF THE COMPUTER:

After completion of this section the student will be able to:

- identify the basic components of the computer and the characteristics of internal auxiliary devices.
- discuss methods by which the computer carries out the operations directed by the program of instructions.

- demonstrate an understanding of how computer characteristics and methods brought about startling improvements in the capacity, speed & accuracy of previous manual and mechanical systems.

CLASSIFICATION OF COMPUTERS:

The student will, upon completion of this section:

- identify the basic characteristics of different generations, sizes, speeds and versatility of computer hardware and software.
- discuss how these characteristics were responsive to the increasing recognition of their usefulness.
- demonstrate an understanding of how computers have become useful tools for small organizations and even individuals in their own homes.

INPUT TO THE COMPUTER:

After completion of this section, the student will be able to:

- identify the various methods by which data is delivered to the processor unit.
- discuss the operation of the input unit to be used in preparation of the first programming project, an exercise in preparing a simple program and obtaining a valid result.
- demonstrate an understanding of how problem definition is accomplished and how flow charts are prepared in the design of a computerized system.
- identify a wide variety of devices, methods and means of getting data into the computer.
- discuss the comparative merits, advantages and disadvantages of the various input devices, methods and means.
- demonstrate an understanding of how and why each of the various input methods are presently being used.

OUTPUT FROM THE COMPUTER:

After completion of this section, the student will be able to:

- identify the various methods and means by which results of processing are produced, delivered and made available to users.

- discuss the characteristics, distinctions, advantages and disadvantages of the various output methods.
- demonstrate an understanding of how output systems and methods are selected and used.

THE CONCEPTS OF COMPUTER LANGUAGES:

- identify the steps necessary to code a program.
- complete the coding of project.

MULTIPROGRAMMING AND TIMESHARING:

After completion of this section, the student will be able to:

- identify the basic characteristics of multiprogramming, timesharing and the associated methods by which one computer and storage facility may be made available to many users seemingly simultaneously.
- discuss the various purposes and advantages accomplished through the application of multiprogramming and timesharing concepts and techniques.
- demonstrate an understanding of how multiprogramming is accomplished and how timesharing serves present-day business data processing requirements.

DATA COMMUNICATIONS:

After completion of this section, the student will be able to:

- identify the main operating characteristics of a data communications system and the items of equipment associated with each.
- discuss the methods and means by which data communications systems function and serve the users of these systems.
- demonstrate an understanding of how data communications systems are used in business and other activities to improve their data processing efficiency and productivity.

DATA NETWORKS & DISTRIBUTED DATA PROCESSING:

After completion of this section the student will be able to:

- identify the component parts, functions and purposes of data networks and distributed data processing.
- discuss the roles of data networks and distributed data processing techniques in the accomplishment of various present day data processing requirements.

- demonstrate an understanding of how data networks function and how distributed data processing operations have been applied to the solution of a variety of information management problems.

THE SECURITY OF COMPUTERIZED INFORMATION:

After completion of this section the student will be able to:

- identify some of the causes of hardware, software and data losses and what measures are applied to the protection against such losses.
- discuss the methods and means by which computer installations and associated information may be safeguarded and secured against the possibility of inadvertant or willfull destruction.
- demonstrate an understanding of how the need to protect and disseminate information must be reconciled with the potential of privacy invasion and curtailment of individual freedom.

METHOD OF ASSESSMENT:

Tests:

3 regular tests @ 25% each	75%
Assignments	25%
Final Exam	25%

NOTE:

Anyone passing all 3 regular tests and completing all assignments will not be required to write the final exam.

EDP 235-3ELEMENTARY COMPUTER CONCEPTSGENERAL OBJECTIVES:

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2. The contribution of data processing to business decision making.
3. The various methods of computer-based data processing systems.
4. Elementary knowledge of programming ^{the SUPERPET} a computer using a high-level programming language. _{micro}
5. Comprehension of the impact of computers on everyday life.

STUDENT RESPONSIBILITIES:

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Students who do not attend 75% of lecture classes will not be permitted to write the final examination.

GRADING SYSTEM:

85-100%	A
70- 84%	B
55- 69	C
less than 55%	I