

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: INTRODUCTION TO COMPUTERS IN NURSING
CODE NO: (Module of) NUR 107 **SEMESTER:**
PROGRAMME: NURSING/NURSING ASSISTANT
AUTHOR; NANCY MCCLELLAND
DATE: SEPT/1994 **PREVIOUS OUTLINE DATED:** SEPT/93

APPROVED:  
Dean Date

Course Name

Code No.

X. PHILOSOPHY/GOALS;

This module of the clinical course is intended to assist nursing students to become computer literate. It is designed to expand communication skills and to increase technological skills.

This computer opportunity is meant to increase the student's awareness of the use of computers in various sections of our society. Since the application of computing skills is necessary to today's health care worker, it will introduce students to computers and their use in health care areas.

II. COURSE OBJECTIVES:

This module will outline basic computer terminology concepts, skills and applications to nursing education. Upon successful completion of this module, the student will be able to:

1. Demonstrate basic computer literacy skills.
2. Apply knowledge about types of computers and computer systems.
3. Successfully use various computer programs, included simulations for nursing students.

III. TOPICS TO BE COVERED:

1. Computer concepts and terminology
2. Types of computers & computer systems
3. Roles of hardware and software
4. How to use micros
5. Data processing cycle
6. How to choose computer suitability
7. Types of software packages, MS-DOS, graphics, HIS, word processing
8. Computers in nursing education programmes
9. Your role as a nurse working with computers - technological skills, personal characteristics, attitudes
10. Determining your level of comfort with computer use
11. Ethical issues in computers and health care

INTRODUCTION TO COMPUTERS IN NURSING

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LEARNING ACTIVITIES

REQUIRED RESOURCES

BASIC COMPUTER CONCEPTS AND TERMS

1. Develop computer literacy skills:
 - a) explain basic concepts & terms
 - b) demonstrate basic skills & applications

Text - end of each chapter
Lab - SDL exercises
* P C Instructor
Tutorial Program

Discuss the computer socialization process in nursing & health care.

Text - Chapter 1

Classify different types of computers and computer systems & describe their uses.

Text - Chapter 1

HARDWARE/SOFTWARE

- a. Describe roles of hardware & software.
- b. Explain levels of computer hardware & software.

Text - Chapter 2

Use relevant micro computers & software packages.

Lab - SDL exercises

Successfully use a computer for a variety of uses.

Lab - SDL exercises

Identify and demonstrate safe and healthy work habits with computers.

C.N., June, 1993,
"Terminal 11lines"

COMPUTER SYSTEMS

5. Describe the data processing cycle:
 - a) Identify 5 major components of a computer.
 - b) State function of each component & discuss their interrelationships to the system.

Text - Chapter 3
PC-Instruction pkg

6. Discuss & formulate a list of examples where computers are used in the home, in travel, business, industry, work places.

Small Group Exercise

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LEARNING ACTIVITIES

REQUIRED RESOURCES

COMPUTER SYSTEMS - Cont'd

7. Relate the system of input processing & output to each of the above examples.
8. Identify characteristics of computers which determine suitability for certain uses:
 - memory size
 - processing speed
 - peripheral capacity
 - auxiliary storage
 - number of uses
 - cost
 - applications
9. Examine how a system can be used:
 - possible uses
 - limitations
 - costs of use

Text - Chapter 2 & 3

SOFTWARE PROGRAMS:

- 10, Identify software packages that accomplish specific purposes:
 - MS Dos - what it does
 - graphics
 - word processing
 - spread sheets
 - data base, information management
 - HIS - Hospital Information Systems
11. Use specific programs for word processing to accomplish:
 - a) loading/booting up a program
 - b) selecting from menu items
 - * c) organizing, modifying & managing data
 - d) examining role of data in a system
 - e) becoming familiar with other functions of this program

Text - Chapter 4,5,6

Appendix A

Veazie, S., Donkmyer L., HIS, MIS, DBMS, Sorting out the letters. Computers in Nr, p. 9-16, 1980

Word Perfect 5.1

Lab - SDL exercises

Text - Appendix B

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LEARNING ACTIVITIES

REQUIRED RESOURCES

COMPUTERS IN NURSING EDUCATION

12. Examine the use of computers in Nursing programs.
 - history
 - simulation packages
 - data processing
 - decision making/problem solving
 - self directed learning package
13. Determine level of comfort with use of simple software program.

COMPUTERS IN HEALTH CARE

14. Discuss the diverse number of technological jobs that exist plus the training, personal characteristics & attitudes needed to be successful in some of them.

ETHICAL CONSIDERATIONS

15. Outline specific ethical issues arising from computer use in health care.

Text - Chapter 13
Case Studies

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V. **EVALUATION METHODS:** (includes assignments, attendance requirements, etc-)

Grading will be based on:

1. Attendance a) class
b) SDL hour

2. Assignments & Tests - To be announced first week of class.

Satisfactory/Unsatisfactory is the grading system.

You will need to complete assignments and achieve 70% + on tests /exercises to earn a Satisfactory grade,

- * Sault College Nursing programmes retain all tests/quizzes/assignments.

VI. **REQUIRED STUDENT RESOURCES**

TEXT:

- Sandra Anderson, Computer Literacy for Health Care Professionals, Delmar Publishers Inc., Albany NY, 1992 (Nelson, Canada)
- 1 disc 5 1/4" double density/double sided
 - 1 disc 3 1/2" High density
 - duotang folder to hand in lab assignments

VII. **ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY BOOK SECTION:** (title, publisher, edition, date, library call number if applicable)

Ball, M.J. & Hannah, K. J., Using Computers in Nursing, Reston, V.A., Reston 1984, Chapter 5 pp. 68-84.

Happ, B., Should Computers be Used in the Nursing Care of Patient? Nr Management 14(7), p, 31-35, 1983.

McNeill, D.G., Developing the Complete Computer Based Information System, Journal of Nr. Administration 79(11), p. 34-46, 1979.

Veazie, S., Donkmyer, T., HIS, MIS, DBMSs: Sorting out the Letters, In R.D. Zielstorff (Ed), Computers in Nr. p. 9-16 Rockville, M.D., Aspen Systems (1980).

Wasseling, E., Automating the Nr, History & Care Plan, In R. D. Zielstorff (Ed), Computers in Nr. 1980 (reprinted for J. of Nr. Admin 1972 May-June) p 73-80, Rockville, M.D., Aspen Systems.

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VII- ADDITIONAL RESOURCE MATERIALS - Cont'd

Dione, J. Skiba & Mark Slichter: Of Bits & Bytes: AJN, January 1984, p, 102-103.

Joyce M. Laborde, Expert Systems for Nursing? Computers in Nr, July/August '84', p. 130-135.

D. Milholland, V. Cardona, Computers at the Bedside, AJN, Sept '83', p. 1304-1307.

Hannah, K.J., "Computers in Nursing Practice", in Baumgart, A.J. & Larsen, J., Canadian Nursing Faces the Future, The C.V. Mosby Co., St. Louis, 1988.p. 263+.

Ford, J. "Computers and Nursing - Possibilities of Transforming Nursing", Computers in Nursing, July/August, 1990.

Lee, A.A., "What Computers Can Do For You...and what they're already doing for the lucky few", RN, September, 1982.

Muirhead, R., "Happening Now: The Decline and Fall of Paperwork" RN, August, 1982.

Sinclair, V.G., "Potential Effects of Decision Support Systems on the Role of the Nurse", Computers in Nursing, March/April, 1990.

VIII. SPECIAL NOTES/STUDENTS RESPONSIBILITIES

A Wing computer rooms: A2020, A2040, A2140, A2050 & Student Workroom open between hours of 0800-2300

- days of week

- weekends

F Wing Computer Room: Available through Health Sc. Lab. Tech or security.

Learning Assistance Center Computers:

Computers in Health Sciences:

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VIII, SPECIAL NOTES/STUDENTS RESPONSIBILITIES Continued . . .

(Rules for use of Health Sciences Computers)

- 1) You must be a student registered in one of the Health Science Programmes. No guests due to limited space.
- 2) No eating or drinking at or near the computers - leave outside door.
- 3) No smoking at or near the computer - Health Sciences is a smoke free environment.
- 4) No playing games on the computers.
- 5) Do not remove any computer equipment from machines or cabinets.
- 6) Non-college use of computers is not allowed.
- 7) Disks may be signed out from lab technician. You must leave your ID card and sign the log. Record date /time/name of software/signature. Lab tech will record time/date returned and initial.

*** Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.