SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	INTRODUCTION TO COMPUTERS IN NURSING
CODE NO:	NUR 226 (Module of Part A) **SEMESTER:**
PROGRAMME:	NURSING
AUTHOR:	NANCY MCCLELLAND
DATE:	JANUARY 1994 **PREVIOUS OUTLINE DATED:** SEPT.1993

APPROVED:

Dean   Date

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I. 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

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LEARNING ACTIVITIES   **REQUIRED RESOURCES**

BASIC COMPUTER CONCEPTS AND TERMS

1. Develop computer literacy skills: Text - end of each
    a) explain basic concepts & terms   chapter
    b) demonstrate basic skills &   Lab - SDL exercises
       applications   * P C Instructor
                                               Tutorial Program

2. Discuss the computer socialization   Text - Chapter 1
    process in nursing & health care.

3. Classify different types of computers   Text - Chapter 1
    and computer systems & describe their
    uses.

HARDWARE/SOFTWARE

4. a. Describe roles of hardware & software   Text - Chapter 2

   b. Explain levels of computer hardware &
       software.

   c. Use relevant micro computers &   Lab - SDL exercises
       software packages.

   d. Successfully use a computer for a   Lab - SDL exercises
       variety of uses.

   e. Identify and demonstration safe and   <u>C.N.</u>, June, 1993,
       healthy work habits with computers.   "Terminal Illness'

COMPUTER SYSTEMS

5. Describe the data processing cycle: Text - Chapter 3
    a) Identify 5 major components of   PC-Instruction pkg,
       a computer.
    b) State function of each component
       & discuss their interrelationships
       to the system.

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

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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   Text - Chapter 2 & 3
   - 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

SOFTWARE PROGRAMS:

10 Identify software packages that   Text - Chapter 4,5,6
   accomplish specific purposes:
   - MS Dos - what it does
   - graphics
   - word processing   Appendix A
   - spread sheets
   - data base, information management
   - HIS - Hospital Information Systems   Veazie, S., Donkmyer
                                              L., HIS, MIS, DBMS,
                                              Sorting out the
                                              letters. Computers
                                              in Nr, p. 9-16, 1980

11 Use specific programs for word
   processing to accomplish: Word Perfect 5.1
   a) loading/booting up a program   Lab - SDL exercises
   b) selecting from menu items   Text - Appendix B
   c) organizing, modifying & managing
      data
   d) examining role of data in a system
   e) becoming familiar with other functions
      of this program

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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   Text - Chapter 13
    arising from computer use in   Case Studies
    health care.

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V.   <u>**EVALUATION METHODS:**</u> **(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, <u>Computer Literacy for Health Care Professionals</u>, Delmar Publishers Inc., Albony 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., <u>Using Computers</u> in <u>Nursing</u>, Reston, V.A., Reston 1984, Chapter 5 pp. 68-84.

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

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

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

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

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VII. <u>ADDITIONAL RESOURCE MATERIALS</u> - Cont'd

Dione, J. Skiba & Mark Slichter: O<u>f</u> <u>Bits</u> & <u>Bytes: AJN</u>, January
1984, p. 102-103.

Joyce M. Laborde, Expert Systems for Nursing? <u>Computers in Nr.</u>
July/August ˣ84', p. 130-135.

D. Milholland, V. Cardona, Computers at the Bedside, <u>AJN</u>, Sept
ᵛ83', p. 1304-1307.

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

Ford, J. "Computers and Nursing - Possibilities of Transforming
Nursing", <u>Computers</u> in <u>Nursing</u>, 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"
<u>RN</u>, August, 1982.

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

VIII. <u>SPECIAL NOTES/STUDENTS RESPONSIBILITIES</u>

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.   <u>SPECIAL HOTES/STUDENTS RESPONSIBILITIES</u> Continued . . .

<u>(Rules for use of Health Sciences Computers</u>)

You must be a student registered in one of the Health Science Programmes. No guests due to limited space.

No eating or drinking at or near the computers - leave outside door.

No smoking at or near the computer - Health Sciences is a smoke free environment.

No playing games on the computers.

Do not remove any computer equipment from machines or cabinets.

Non-college use of computers is not allowed.

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.