SAULT COLLEGE **OF APPLIED ARTS & TECHNOLOGY**

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

INTRODUCTION TO COMPUTERS IN NURSING

COURSE TITLE:

NUR 105 (Module of)

CODE NO: **SEMESTER:**

NURSING/NURSING ASSISTANT

PROGRAMME:

NANCY MCCLELLAND

AUTHOR:

SEPT/1993 JANUARY 1993

DATE: **PREVIOUS OUTLINE DATED:**

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:
   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

4. a. Describe roles of hardware & software.	Text - Chapter 2
b. Explain levels of computer hardware & software.	
Use relevant micro computers & software packages.	Lab - SDL exercises
Successfully use a computer for a variety of uses.	Lab - SDL exercises
Identify and demonstration safe and healthy work habits with computers.	C.N., June, 1993, "Terminal Illness"

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

Relate the system of input processing
& output to each of the above examples.

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
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   Appendix A
    - word processing
    - spread sheets
    - data base, information management   Veazie, S., Donkmyer
    - HIS - Hospital Information Systems   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.   EVALUATION METHODS; (includes assignments, attendance
       requirements, etc.)

       Grading will b§ 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., 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
       BOOR 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, Rochville, M.D., Aspen
           Systems.

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VII. ADDITIONAL RESOURCE MATERIALS - Cont'd

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

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

D. Milholland, V. Cardona, Computers at the Bedside, <u>AJN</u>, Sept
'83', 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</u> in <u>Nursing</u>, March/April,

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.   <u>**SPECIAL NOTES/STUDENTS RESPONSIBILITIES**</u> Continued . * *

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

1) **Tou 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 techniciani tou 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«**