# SAULT COLLEGE OF APPLIED ARTS *it* TECHNOLOGY SAULT STE. MARIE, ONTARIO

# **COURSE OJULWE**

COMPUTERS IN NURSING & HEALTH CARE

**COURSE TITLE:** 

NUR 226 (Module of)

CODE NO: SEMESTER:

NURSING

PROGRAMME:

DEBBIE SARGENT

AUTHOR:

JAN/1996

SEPT/1994

DATE: PREVIOUS OUTLINE DATED:

**APPROVED** 

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**Date** 

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# I. PHILOSOPHY/GOALS:

This module of the clinical course is intended to assist nursing students to use their basic computer literacy skills in Health related applications. It is designed to expand communication skills and to increase technological skills.

Application of computing skills is necessary to today's nurse. The focus of this course will be on health related software packages and integration of computers in health care areas.

### II. COURSE OBJECTIVES:

This module will review basic computer terms, concepts and skills and use applied softward programs to nursing education, nursing practice and health care. 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. Use various computer programs, included simulations for Nursing students, health information systems.
- 4. Evaluate computer software packages for nursing and health care.
- 5. Review ethical issues arising from computer use in health care.
- 6. Successfully use a computer for a variety of applications.

# **III.** TOPICS IQ\_ BE CQVEBEQ:

- 1. Review of basic computer terms and concepts.
- 2. Review use of micros.
- 3. Use of software packages, MS-DOS, word processing, graphics, HIS, simulations.
- 4. Computers in nursing education programmes.
- 5. Nurse's role working with computers, technological skills, personal characteristics, attitudes.
- 6. Setting goals for personal/professional computer use.
- 7. Evaluating criteria for nursing software packages.
- 8. Examine possible use/limitations/cost of a system.
- 9. Communication technology networking in Health Care.
- 10. Computer use in Health Care setting.
- 11. Organizing and managing data.
- 12. Predicting trends in computers and Health Care.
- 13. Ethical issues in computers and Health Care, abuses and remedies.
- 14. RNAO roles and responsibilities interest groups.

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#### IV. LEARNING ACTIVITIES

#### **REQUIRED RESOURCES**

#### BASIC COMPUTER CONCEPTS AND TERMS

Unit I - Review Part A

- 1. Review basic computer terms and concepts.
- 2. Demonstrate basic computer literacy skills.
  - a) use MS-DOS commands to format disk
  - b) use anti virus scanner
  - c) use WordPerfect 5.1 to word process
    - create a file
    - save a file
    - print a file
    - exit a file
    - list files
    - retrieve documents
  - d) exit main menu and load alternate software packages (i.e. printmaster)
- 3. Review data for WP 5.1 on the F5 function key "List files"
  - a) Bottom menu choices

or manual

- retrieve
- delete
- rename
- print
- look
- copy
- b) top screen data
- c) character/location of files listed

Review

Text - end of each chapter and Part A notes

Review text and Part A notes

Review Part A notes
- work with WP 5.1
support package

Use any WP 5.1 text

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#### IV. LEARNING ACTIVITIES

#### REQUIRED RESOURCES

# BASIC COMPUTER CONCEPTS AND. IERMS Continued . . .

- 4. Identify characteristics of the average home or workplace computer hardware/ software, costs, applications, limitations
- 5. Examine and demonstrate use of computers in Nursing programs.
  - a) history
  - b) simulation packages
  - c) data processing
  - d) decision making/problem solving
  - e) self directed learning packages
  - f) spread sheets
  - g) data base information management
- 6. Establish & use criteria for evaluating software/hardware.
  - a) determine how to choose useful nursing application packages
  - b) evaluate programs used for nursing situations
  - c) describe your role as a nurse in data processing & data analysis
  - d) discuss ways in which computers may be used directly in patient care.
    - client monitoring
    - planning patient care
    - documentation
  - e) discuss the role of nursing in choosing, inputting & implementing a computer system in the health care setting.
- Set short term and long term goals for personal/professional computer use. Consider:
  - comfort level
  - technology available
  - possibilities for use now/future
  - limitations

Handout in class of list of software packages available

Text - Chapter 10,11 Happ, B., Should Computers Be <u>Used</u> in the <u>Nursing Care</u> of <u>Patients?</u> Nr. <u>Management</u> 14(7), p. 31-35, 1983. \* OMPUTERS IN NURSING &. HEALTH CARE

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## **COMMUNICATION AND NETWORKING**

8. Describe fundamentals of data communication technology with use of computers at home or in workplace.

Text - Chapter 7

9. Identify & compare the major languages used in computer programs.

Text - Appendix D

 Observe/utilize computer technology in various work settings in health care. Field work exercise in selected health care agencies

11. Explore & predict the trends of computers in society & in particular health care.

Text - Chapter 8,9, 10.12.14

 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

 Outline specific ethical issues arising from computer use in health care. Text - Chapter 13 Case Studies

- 14. Outline responsibilities of government &. professional associations:
  - a) in directing the evaluation of information processing
  - b) maintaining effective controls.
- 15. Become aware of areas of possible abuse of computers & of the remedies available should abuse occur.

Sault College and Institution Policies

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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 60% + on tests /exercises to earn a Satisfactory grade.

\* Sault College retains all tests/quizzes/assignments.

## VI. REQUIRED STUDENT RESOURCES:

- Anderson, S. Computer Literacy for. Health Care Professionals, Delmar Publishers Inc., Albany NY, 1992 (Nelson, Canada)
- 2 discs 3 1/2" high density 1 duotang folder to hand in lab assignments

# VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IM 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? Mr Management 14(7), p. 31-35, 1983.
- McNeill, D.G., Developing the Complete Computer Based Information System, **Journal** of ML Administration 79(11), p. 34-46, 1979.
- Veazie, S., Donkmyer, T., HIS, MIS, DBMSs: Sorting out the Letters, In R.D. Zielstorff (Ed), <u>Computers</u> in ML. p. 9-16 Rockville, M.D., Aspen Systems (1980).
- Wasseling, E., Automating the Nr. History & Care Plan, In R. D. Zielstorff (Ed), <u>Computers</u> in ML 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</u> MATERIALS <u>AVAILABLE</u> IN XH£ CjQLLEGE LIBRARY BOOK SECTJQN. Continued . . .

- Dione, J. Skiba & Mark Slichter: Qi Bits. L Bytes: AJN, January 1984, p. 102-103.
- Joyce M. Laborde, Expert Systems for Nursing? <u>Computers</u> in ML. 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., Canadian Miusing Eases 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", <u>RN</u>, August, 1982.
- Sinclair, V.G., "Potential Effects of Decision Support Systems on the Role of the Nurse", Computers in Nursing, March/April, 1990.

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# VIII. SEECJAL NOTES/STUDENTS RESPONSIBILITIES

A Wing computer rooms: A2020, A2040, A2140, A 2050, and 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:

### Rules fox US£ fif Health Sciences Computers

- 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.