

W. 97

THE UNIVERSITY OF ALBERTA
COLLABORATIVE NURSING PROGRAM
AT
GRANDE PRAIRIE REGIONAL COLLEGE

NURSING 1060
INTRODUCTION TO NURSING PHARMACOTHERAPEUTICS
Room H211

INSTRUCTOR
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Adapted from M. Wiebe's Course Outline, 1995

NS1060 INTRODUCTION TO NURSING PHARMACOTHERAPEUTICS

This course focuses on the study of drugs, their therapeutic use and effects. The nursing role in promoting optimal therapeutic regimens and in the management of side/adverse effects will be included. Prerequisite or corequisite:BI1621.

MINIMUM COURSE HOURS

Classroom: 33 Clinical: 0 Laboratory: 0

COURSE DESCRIPTION

This course is designed to introduce the student to nursing pharmacotherapeutics across the life span. Particular emphasis will be placed on the nurse's professional responsibilities in the provision of optimal drug therapy. Specific information regarding indications for use, mechanisms of action, therapeutic and adverse effects, and patient education requirements as related to selected major drugs/drug classifications will be addressed.

COURSE OBJECTIVES

Upon completion of this course the student will be able to:

- 1) Understand the ethical and legal aspects of the role of the professional nurse as related to nursing pharmacotherapeutics.
- 2) For specific drugs or drug classifications, understand indications for use; mechanisms of action; therapeutic effects and how these can be promoted; adverse effects and how these can be minimized or prevented; patient education requirements; variables which alter an individual's response to drug therapy.
- 3) Apply nursing pharmacotherapeutics knowledge as related to drug therapy.

- 4) Use appropriate resources in the provision of optimal drug therapy.
- 5) Develop abilities to further nursing pharmacotherapeutic knowledge.
- 6) Value the collaborative role of the professional nurse in the provision of drug therapy.

CORE COURSE CONTENT

- 1) A brief overview of the historical evolution of drug therapy and the nurse's role in the provision of drug therapy.
- 2) Discussion of the ethical and legal implications of drug therapy, including the roles of various health care providers (physicians, pharmacists, RNs, LPNs, clients, family members) in the provision of drug therapy; patient rights related to drug therapy; the nurse's role in clinical drug trials; substance abuse among nurses.
- 3) Introduction to the principles of pharmacokinetics and pharmacodynamics.
- 4) Discussion of cultural influences on drug therapy.
- 5) Discussion of the use of traditional/nonwestern medicine as alternatives in drug therapy.
- 6) Discussion of the implications of drug therapy across the life span, with emphasis on the implications in antenatal women, children, and older adults and how these differ from younger adults.
- 7) The role of the nurse in patient education regarding prescribed, OTC, and illicit drugs.
- 8) Introduction to skills that enable the nurse to continually update pharmacotherapeutic knowledge.

- 9) Introduction to the principles of drug administration.
- 10) Introduction to nursing pharmacotherapeutics and to the integration of these in the provision of drug therapy for selected major drug classifications:
 - antidiarrheals
 - laxatives
 - antacids
 - antiemetics
 - H₂receptor antagonists
 - analgesics (narcotic and nonnarcotic)
 - NSAIDs
 - diuretics
 - cardiac glycosides
 - anti-infectives
 - bronchodilators
 - mucolytics
 - oral hypoglycemics
 - insulin
- 11) Dosage calculations.

Students who miss a class are responsible for all information covered in class.

REQUIRED TEXTBOOKS

Spencer, R.T., Nichols, L.W., Lipkin G.B., Henderson, H., & West, F.M. (1993). Clinical Pharmacology and Nursing Management (4th ed.). Philadelphia, PA: J.B. Lippincott.

Karch, A.M. (1996). Nursing Drug Guide. Philadelphia, PA: J.B. Lippincott.

RECOMMENDED TEXTBOOK

Osis, M. (1991). Dosage Calculations in SI Units (2nd ed.). St. Louis, MI: Mosby Year Book.

COMPUTER PROGRAM

A math tutorial computer program (Pro-Calc) is available in the computer lab, room A301.

EVALUATION METHOD

Medication Analysis Assignment	15%
Math test	15%
First Midterm exam	20%
Second Midterm exam	20%
Final exam	30%

Grading System

9 - 90-100%	B - 80-89%	7 - 72-79%
6 - 65 -71%	5 - 57-64%	4 - 50-56%
3 - 45-49%	2 - 26-44%	1 - 0-25%

In order to receive credit in the course students must complete all assignments, achieve a minimum of 90% on the math test, and achieve an overall average of 65%.

DESCRIPTION OF ASSIGNMENTS

1. MEDICATION ANALYSIS 15% DUE MARCH 27, 1997

Purpose

The purpose of this assignment is to allow students the opportunity to critically examine a client medication profile.

Process

Select a client who is on at least 3 medications, (OTC or prescribed). This may be a client you are assigned to in your clinical course, a family member, or a

friend. Analyze his/her medication regime by considering the following for each medication:
mechanism of action (dynamics),
intended therapeutic use for the client,
effectiveness,
appropriateness of route and dosage,
side effects currently experienced by the client,
important client teaching information.
Consider drug interactions that may be occurring.

Product

The paper should be 4 to 6 pages in length, typed, and double spaced.

References must conform to APA format.

2. MATH TEST 15%

DUE FEBRUARY 20, 1997

A short answer math test must be passed by all students. The pass mark is 90%. Students will be given three opportunities to pass the test. The mark of the first writing will be used to calculate the final course mark. Failure to achieve 90% on the third writing will necessitate remedial work. A pass mark must be achieved by the date specified above in order to receive credit in the course. Use of a calculator is optional. Writing times are to be negotiated with the instructor.

3. FIRST MIDTERM EXAMINATION 20% DUE FEBRUARY 20, 1997

This will be a multiple choice exam covering material presented in class to the date of the exam.

4. SECOND MIDTERM EXAMINATION 20% DUE MARCH 24, 1997

This will be a multiple choice exam covering material presented in class from March 3, 1997 to the date of the exam.

5. FINAL EXAMINATION 30% AS PER COLLEGE EXAM SCHEDULE

This will be a multiple choice exam covering material from the entire course: 22% from material covered since March 24, 1997 and 8% from material covered prior to that date.

Late assignments will be penalized 5% for every day late.
Extenuating circumstances MAY be considered on an individual basis.

DETAILED CLASS SCHEDULE

DATE	TOPIC	READING
Jan 6/97	Introduction to the course, including math & self study	
Jan 9/97	Historical overview Legal/ethical issues in pharmacology - controls, standards, roles of health professionals	Chp 1 pp. 2-8 Chp 2 pp. 9-19 Chp 13 pp. 156-159
Jan 13 & 16/97	Pharmacodynamics & pharmacokinetics	Chp 7 pp. 62-81 Chp 8 pp. 82-90 Chp 9 pp. 91-108 Chp 10 pp. 109-112
Jan 20/97	Psychological & sociocultural aspects of drug therapy	Chp 11 pp. 124-129 Chp 12 pp. 130-153
Jan 23 & 27/97	Implications of drug therapy across the life span	Chp 16 pp. 215-255 Chp 17 pp. 256-264 Chp 18 pp. 265-270
Jan 30/97	Substance abuse	Chp 15 pp. 193-196 Chp 14 pp. 190-192

Feb 3/97	Role of the nurse in drug therapy	Chp 3 pp. 20-29 Chp 4 pp. 30-38 Chp 13 pp. 156-162 Chp 19 pp. 276-288
Feb 6/97	Principles of drug administration	Chp 13 pp. 163-175 Chp 14 pp. 176-192
Feb 10 & 13/97	Antipyretics Drugs affecting the respiratory tract	Chp 45 pp. 1130-1140 Chp 37 pp. 889-925
Feb 17/97	Family Day	
Feb 20/97	First Midterm exam and math test	
Feb 24 - 28/97	Winter Break	
Mar 3 & 6/97	Drugs affecting the upper GI tract	Chp 30 pp. 652-693
Mar 10/97	Drugs affecting the lower GI tract	Chp 31 pp. 694-718
Mar 13/97	NSAIDs	Chp 47 pp. 1147-1163, 1173- 1176
Mar 17 & 20/97	Drugs used in the management of pain	Chp 20 pp. 289-300 Chp 24 pp. 422-441
Mar 24/97	Second Midterm Exam	
Mar 27 & 31/97	Drugs used to treat infections	Chp 41 pp. 1002-1044
Mar 28/97	Good Friday	

Apr 3/97	Drugs used to manage diabetes	Chp 33 pp. 768-784
Apr 7/97	Cardiac glycosides	Chp 27 pp. 532-550
Apr 10/97	Diuretics	Chp 40 pp. 980-1000