



**UNIVERSITY OF ALBERTA
COLLABORATIVE
BACCALAUREATE
NURSING PROGRAM**

Grande Prairie Regional College
Grant MacEwan College
Keyano College
Red Deer College
University of Alberta

NS 2150

Pharmacotherapeutics in Nursing

CALENDAR STATEMENT:**Pharmacotherapeutics in Nursing**

*3 (3-0-0). This course focuses on the mechanisms of action of drugs, their therapeutic uses and side-effect profile. General principles related to drug absorption, distribution, metabolism and excretion will be addressed. The nursing role in promoting optimal therapeutic regimens and in the management of side/adverse effects will be included.

COURSE HOURS (per week):

Lecture: 3 Seminar: 0 Lab: 0

COURSE LEADER:

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Course Instructor's information

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Name: TBA

Office: TBA

Phone: TBA

COURSE DESCRIPTION:

The course begins with an introduction to drug classification and regulation - from discovery to the patient. The foundations of pharmacodynamic and pharmacokinetic principles will be introduced. Four fundamental domains of drug movement and modification will be studied: drug absorption, distribution, metabolism, and excretion (i.e., pharmacokinetics). To illustrate how the principles involved in pharmacotherapeutics need to be incorporated into professional nursing practice, examples of prototypic drugs from each Drug Class will be used. Brief scenarios will be used to contextualize pharmacology within the clinical setting. Safe, evidence-based practice will be emphasized.

COURSE OBJECTIVES:

Upon completion of Nursing 2150, the nursing student will be able to:

1. Demonstrate an understanding of the basic concepts related to the pharmacodynamic principles underlying drug actions in the human body.
2. Demonstrate an understanding of the basic pharmacokinetic principles related to movement of drugs within the human body.
3. Demonstrate an understanding of the classification, nature, properties, and effects of drugs.
4. Demonstrate an understanding of the role of nursing in promoting optimal therapeutic regimens and in the management of side/adverse effects.
5. Demonstrate an understanding of how variations in anatomy and physiology may affect the four fundamental domains of drug movement.
6. Learn to integrate evidence-based pharmacological nursing knowledge into professional practice.
7. Demonstrate an understanding of ethical and legal principles related to the administration of pharmacological agents.

REQUIRED TEXTBOOKS AND RESOURCES:

Adams, M.P, Josephson D.L., & Holland, L.N., Jr. (2005). *Pharmacology for nurses: A pathophysiologic approach*. Philadelphia: Prentice Hall.

The electronic Compendium of Pharmaceuticals and Specialties (*e-CPS*):
<http://www.library.ualberta.ca/databases/databaseinfo/index.cfm?ID=3560>
Understanding Alberta's Drug Schedules:
http://pharmacists.ab.ca/ab_drug_schedules/

RECOMMENDED TEXTBOOKS AND RESOURCES:

Deglin, J.H., & Vallerand, A. H. (2005). *Davis's drug guide for nurses* (9th ed.) Philadelphia: F. A. Davis.

Nursing drug handbook (24th ed). (2004). Philadelphia: Lippincott Williams & Wilkins.

Karch, A. M. (2004). *2004 Lippincott's nursing drug guide*. Philadelphia: Lippincott Williams & Wilkins.

Springhouse nurse's drug guide 2004. Philadelphia: Lippincott Williams & Wilkins.

Fetrow, D.W., & Avila, J. R. (2002). *Professional handbook of complementary & alternative medicines* (2nd ed.). Pennsylvania: Springhouse.

Hardman, J. G., & Limbird, L. E. (2001). *Goodman & Gilman's The Pharmacological basis of therapeutics* (10th ed.). New York: McGraw Hill.

REQUIRED LEARNING EXPERIENCES:

NURS 2150 Lectures: students will work with tutor in class to acquire necessary information for pharmacotherapeutics. Attendance is an expectation.

COURSE EVALUATION:

In order to pass Nursing 2150, students must **complete** the following requirements:

Course Requirements Value Due Date

1. Midterm examination : 35% (a combination of multiple choice and short answer questions)
2. Final Examination : 65% (a combination of multiple choice and short answer questions) *refer to the Student Handbook for procedures for exams

Total 100%

SPECIALIZED SUPPORT and DISABILITY SERVICES:

Students who require accommodations in this course due to disability affecting mobility, vision, hearing, learning, or mental or physical health are advised to discuss their needs with Student Services.

POLICY STATEMENTS:

Late Assignment Policy:

All assignments may be required to be completed in order to pass a course.

All assignments are expected to be passed in at the time and place they are due. Extensions on assignments may be granted and must be negotiated with the instructor prior to the due date and with a date specified for late submissions.

A penalty of one letter grade for each working day that an assignment is submitted after the due date will be deducted from the final mark. For example, a paper scored at B+ would receive an adjusted grade of B if handed in one day late. Late assignments are due by 4:00 pm and must be verified (stamped with date and time) by Nursing office personnel.

Assignment of Final Grade:

A grade will be assigned for each assignment using the marking criteria and then based on the grade descriptors (excellent, good, satisfactory, poor). Rationale will be given as to the assigned grade. Grading descriptors will be provided for each assignment.

Grading Criteria for Nursing Courses:

Alpha Grade	4 Point Equivalent	Descriptor
A+	4.0	Excellent
A	4.0	Excellent
A-	3.7	First Class Standing*
B+	3.3	First Class Standing*
B	3.0	Good
B-	2.7	Good
C+	2.3	Satisfactory
C	2.0	Satisfactory
C-	1.7	Satisfactory

Passing Grades in Nursing Courses

Failing Grades in Nursing Courses

Alpha Grade	4 Point Equivalent	Descriptor
D+	1.3	Poor/Minimal Pass
D	1.0	Poor/Minimal Pass
F	0.0	Failure

* Very Good/Above Average is an alternate descriptor for First Class Standing.

*Students **may** receive a grade of D or D+ in an assignment or component of a course, but must have an overall grade of C- to achieve a passing grade in a nursing course.*

****Note: Refer to the 2004-05 College calendar p. 33 for further details regarding the grading policy and p. 148 and 149 regarding Progression Criteria in the Bachelor of Science in Nursing program.**

NURS 2150 Schedule

Week Date Topic Notes

Week 1 Introduction to the course, followed by:

- Introduction to pharmacology: drug regulation and approval in Canada.
- Drug Classes and their schedules in Alberta. Chapters 1 and 2 will also refer to gastrointestinal drugs (Ch. 36) to illustrate some of the points.

Week 2

- Pharmacokinetics.

Week 3

- Pharmacodynamics

Week 4

- Substance Abuse [Drugs of Addiction]

Week 5

- Drugs affecting the autonomic nervous system
- Drugs for anxiety and insomnia
- Drugs for seizures

Week 6

MIDTERM EXAMINATION (08:15 – 09:30 h)

Chapter 16:

- Drugs for emotional and mood disorders

Week 7

Chapter 19:

- Drugs for the control of pain

Chapter 21:

- Drugs for hypertension

Week 8

Chapters 27 and 24:

- Drugs for Lipid disorders
- Drugs for Coagulation disorders

Week 9

Chapters 25 and 26:

- Drugs for angina, MI and CVA
- Drugs for Shock

Week 10

Chapters 32, 33 and 34:

- Drugs for bacterial infections
- Drugs for fungal, protozoan and helminth infections
- Drugs for viral infections

Week 11

Chapters 47 & 48:

- Drugs for skin disorders
- Drugs for eye and ear disorders

Week 12

To be announced

Week 13

Review

The final exam will be administered during examination week.