



**UNIVERSITY OF ALBERTA
COLLABORATIVE
BACCALAUREATE
NURSING PROGRAM**

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



**NS 2150
2007 – 2008 COURSE OUTLINE**

Revised by the Learning Experiences Development Committee, April 2007

**Pharmacotherapeutics in Nursing
Fall, 2007
DE**

COURSE LEADER/COURSE INSTRUCTOR'S INFORMATION:

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Approved: May 2007

CALENDAR STATEMENT:**Pharmacotherapeutics in Nursing**

*3 (fi 6) (3-0-0). 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.

PREREQUISITE:

Year 1 BScN students must have completed semester 1 prior to taking NS 2150.

COURSE HOURS (per week):

Lecture (Blackboard): 3 Seminar: 0 Lab: 0

COURSE DATES and DELIVERY:

Dates: September 6-December 13, 2007; On-line through Blackboard. **Orientation to Blackboard, the Course, and Elluminate using Elluminate will occur on September 6, 2007 at 1900hrs.** You will have received instructions on this through a package that you received via mail. Just click on the red Elluminate button at the bottom left of your Blackboard Screen and enter your user name and password. We will guide you through the rest. If you miss this Orientation session then you can watch a recording of this session through Elluminate.

Final Exam available on-line Dec 12-16, 2007.

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 adsorption, distribution, metabolism, and excretion (i.e., pharmacokinetics). To illustrate how the principles involved in pharmacotherapeutics need to be incorporated into professional nursing practice; examples from specific drug classes will be used. Brief scenarios will be used to integrate pharmacology within the clinical setting. Safe, evidence-based practice will be emphasized.

TRANSFER STATUS:

NS 2150 is transferable to the University of Alberta as NURS 215 and part of the block transfer agreement within the University of Alberta/GPRC Collaborative program.

COURSE OBJECTIVES:

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

1. Demonstrate an understanding of ¹ the basic pharmacodynamic concepts underlying drug actions in the human body.
2. Demonstrate an understanding of the basic pharmacokinetic principles that govern 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 the nurse and the health team in promoting client education optimal therapeutic regimens, and in the anticipation and management of side/adverse effects.
5. Demonstrate an understanding of how individual differences account for differences in drug response.
6. Integrate principles of drug therapies into professional practice.
7. Demonstrate an understanding of ethical and legal principles related to the administration of pharmacological agents.

COURSE STRUCTURE/ DELIVERY MODE:

The course will be delivered on-line through GPRC's on – line course management system (Blackboard). This is an asynchronous online course. This means there is no established time when you must log on. However, at a specified time each week, the instructor will make an online presentation relating to the topic for that week and the issues of the day. This presentation will set the tone for the online discussion. The purpose of the weekly input is to keep each of us focused on the same topic. Once the instructor's presentation is posted, you may add to the discussion at any time. You must log-on twice a week at a minimum. However, to benefit most from this part of the course, you are advised to check in on the discussion several times a week, adding your thoughts and comments to those of others so that the discussion grows as it continues back and forth.

In addition to the online course materials in Blackboard, we will use another online tool – Elluminate – actually to speak to one another. These conversations will be much like telephone conference calls but with some additional visual elements. You have a Voice Conference button (Elluminate) in Blackboard that will let you access these conferences.

¹ 'Demonstrate an understanding of...' This means through satisfactory continuous assessment, the examination regimen, self-testing using the Blackboard site, class interaction with tutor, etc.

This component is not compulsory, but will benefit you greatly if you participate. These will run for about 1 hour every 2 weeks. Dates and Times TBA.

All Elluminate sessions will be recorded so students who miss any can log into Elluminate at any time and watch/listen to the recorded session.

A summary of the expectations of online participation can be found in the Course Evaluation section.

TECHNICAL REQUIREMENTS: COMPUTER SYSTEM

In order to participate in the program, each student must own or have ready access to a PC. Students are responsible for their own communication costs such as long distance telephone charges and subscriptions to an Internet node, or any other communication service requirements.

Elluminate *Live!* requires Sun Microsystems Java Web Start to be installed on your computer. Go to <http://www.illuminate.com/> and click support. If you see a red X you will need to download this from this site. If you see a green checkmark, you have the program already and are set to go.

CONTACT INFORMATION

Our communication will be carried out by internal course e-mail, Elluminate, and Blackboard Discussion Forums; on-site visits to my office can occur at H227 or by phone if you require assistance. All assignments and the final exam must be completed on-line.

REQUIRED TEXTBOOKS AND RESOURCES:

Lilley, L.L., Harrington, S., Synder, J.S., and Swart, B. (2007). *Pharmacology and the nursing process in Canada* (1st ed.). Toronto: Elsevier.

A Nursing drug handbook or drug handbook software for a PDA.

ADDITIONAL RESOURCES

PowerPoint presentations, handouts, learning activities, animations, links to media resources, course announcements, etc., will be available on **BLACKBOARD** weekly as needed.

OPTIONAL RESOURCES

Lilley, L.L., Harrington, S., Synder, J.S., and Swart, B. (2007). *Pharmacology and the nursing process in Canada: Study guide* (1st ed.). Toronto: Elsevier (**You will have to order this study guide if you want this resource**).

To participate in Elluminate you will require a headset with a microphone. This can be purchased through any store selling computer accessories (London Drugs, Future Shop, Staples, etc).

REQUIRED LEARNING EXPERIENCES:

NURS 2150 Lectures: students will work with tutor on-line to acquire necessary information for pharmacotherapeutics. Participation is an expectation. You will need to spend approximately 3 hours on the Blackboard site each week.

COURSE EVALUATION:

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

Course Requirements and Value (Total 100%)

1. On-line open book quizzes: There will be 6 valued at 10% each. (Total: 60%). These consist of fill in the blank, matching, true/false, multiple answers, ordering, and multiple choice questions. All quizzes will be submitted on-line through an automated system at the dates and times specified in the study guide. The quizzes will be available for 4 days, from 0800 on Day 1 to midnight on Day 4. You may log on anytime during this period and complete the quiz. You may also partially complete it at anytime and go back and finish the quiz at any time during this period. You just need to ensure that you save it each time. When completed, you will submit the quiz on-line. Your grades will be automatically entered into the Blackboard grade book.
2. Final Examination: 30% (75 multiple choice questions) *refer to the Student Handbook for procedures for exams. The final exam will be submitted on-line through an automated system at the date and time specified in the study guide. It will be available for **5 days**, but once you log on, you will have **1 ½ hours** to complete it. You **cannot** partially complete it and return later. You should also ensure you regularly save the answers. When completed, you will submit it on-line. Your grade will be automatically entered into the Blackboard grade book. **This is a proctored exam. This exam can be taken anytime from 0800 Dec 12th to 2400hrs Dec 16th.**

In town students or students attending on-campus classes at GPRC can take the exam at GPRC library. Please e-mail the instructor to confirm you will be taking it at GPRC library. The instructor will have arranged access to the exam with GPRC library. Just go to the circulation desk at the library, tell them you are there to write the exam, and they will set you up. This exam is password protected, so you will not be able to access it without the password. Only the proctor will have the password.

For out of town students, you are responsible for finding a proctor at your local college, University, Library, etc. E-mail the instructor to let her know who your

proctor will be (name, institution, phone number, and e-mail address). The instructor will then notify the proctor of the password.

3. Participation: Mid-term self - evaluation 5%; Final self – evaluation 5%. These are posted in Blackboard in Unit 7 and 13 [Course Documents]. You will complete these, save, and submit by placing them in the Digital Drop Box. Refer to course introduction for more information.

PARTICIPATION CRITERIA

Conference Participation

The assessment structure for NS2150 indicates that 10% of your final grade will be determined by your participation in the course. Your participation will be measured against the following criteria. Keep these criteria in mind as you proceed through the course, and gauge your own efforts toward achieving your full share of this significant portion of your course grade. You will submit a mid-term participation self-evaluation at the end of week 7, followed by a final self-evaluation at week 13. A formative (mid-term) and summative (final) evaluation tool will be provided. Your participation mark is the mark given by you for each of the two evaluations. The instructor reserves the right to override this mark if it is deemed it is not an accurate evaluation of your participation. The instructor will be watching for the introduction of new ideas, the support of others, offering of reference sites, and interesting interpretation or application of the course content.

Participation Criteria

1. Respond to online discussions at least twice each week.
 - Post my input into the forum at least once each week.
 - Respond to online discussions at least once each week.
2. Contribute original thoughts or ideas to online discussions.
3. Bring up new and related perceptions of an issue being discussed.
4. Cite relevant research to validate points made.
5. Be open to divergent points of view.
6. Be respectful of the perceptions of others.
7. Integrate material from previous units to formulate ideas and generate dialogue.
8. Follows directions
9. Follow rules of grammar and spelling.

Conference participation is critical to course success. Cooperative and collegial learning is fundamental to this course. Your participation is not being evaluated relative to others in the class but rather against the above stated criteria.

ELLMINATE SESSIONS

These sessions are not mandatory and do not affect your participation mark.

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.

ANNOUNCEMENTS

General course announcements will be made on Blackboard in the Announcements Forum.

POLICY STATEMENTS:

Late Assignment Policy:

All quizzes and final exam are expected to be completed on-line within the time frame given. Extensions on assignments may be granted and must be negotiated with the instructor prior to the due date and with a date and time 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 if applicable. For example, a quiz scored at 80% (B+) would receive an adjusted grade of 75 (B) if submitted one day late when an extension was not negotiated with the instructor.

Plagiarism and Cheating:

Please refer to the GPRC policy on plagiarism and cheating as guidelines for NS 2150.

<http://www.gprc.ab.ca/about/administration/policies.html>

Assignment of Final Grade:

A percentage mark will be assigned for each quiz, participation, and final exam. A final letter grade will be determined by converting the total percentage mark for all evaluation components to a letter grade. The letter grade is based on the grade descriptors (excellent, good, satisfactory, and poor).

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: Please refer to the GPRC grading policy at <http://www.gprc.ab.ca/about/administration/policies.html>**

and the Progression Criteria in the Bachelor of Science in Nursing program at <http://www.gprc.ab.ca/programs/details.html?ID=52>

NURS 2150 Schedule

All Chapter readings are from Lilley, L.L., Harrington, S., Synder, J.S., and Swart, B. (2007). *Pharmacology and the nursing process in Canada* (1st ed.). Toronto: Elsevier unless otherwise indicated.

Unit/Date	Topic	Readings	Notes
1 Sept 6 th .	<p><u>Pharmacology Basics</u></p> <p>Introduction to the course</p> <p>The Nursing Process and Drug Therapy</p> <p>Pharmacological Principles</p> <ul style="list-style-type: none"> ▪ Pharmaceutics ▪ Pharmacokinetics ▪ Pharmacodynamics ▪ Pharmacotherapeutics ▪ Pharmacognosy <p>Lifespan considerations in medication administration</p>	<p>Course outline Introduction [Discussion Board – Introduction Forum]</p> <p>Chapter 1: The Nursing Process and Drug Therapy</p> <p>Chapter 2: Pharmacology Principles</p> <p>Chapter 3: Lifespan Considerations.</p>	
2 Sept 13 th .	<p><u>Pharmacology Basics</u></p> <p>OTC and Herbal therapy</p> <p>Substance Abuse [Drugs of Addiction]</p> <p><u>Drugs affecting the CNS</u></p> <p>Drugs for Control of Pain</p>	<p>Chapter 7: Over the Counter and Natural Health Products</p> <p>Chapter 8: Problematic Substance Use</p> <p>Chapter 10: Analgesic agents</p>	Quiz #1: Available Sept 20-23.
3 Sept 20 th .	<p><u>Drugs affecting the CNS</u></p> <p>Drugs for insomnia</p> <p>Drugs for Seizures</p> <p>Drugs for Parkinson's Disease</p>	<p>Chapter 12: Central Nervous System Depressants and Muscle relaxants</p> <p>Chapter 13: Anti-epileptic Agents</p> <p>Chapter 14: Antiparkinsonian Agents</p>	

4 Sept 27 th .	<p><u>Drugs affecting the CNS</u></p> <p>Drugs for Anxiety, emotional, and mood disorders</p> <p>Stimulants</p> <p><u>Drugs affecting the autonomic nervous system</u></p>	<p>Chapter 15: Psychotherapeutic Agents</p> <p>Chapter 16: CNS Stimulant Agents</p> <p>Chapter 17: Adrenergic Drugs</p>	Quiz #2: Available Oct 4-7.
5 Oct 4 th .	<p><u>Drugs affecting the autonomic nervous system</u></p>	<p>Chapter 19: Cholinergic Drugs</p> <p>Chapter 20: Cholinergic-Blocking Drugs</p>	
6 Oct 11 th .	<p><u>Drugs affecting the Cardiovascular and Renal systems</u></p> <p>Drugs for Angina, MI and CVA</p>	<p>Chapter 21: Positive Inotropic Agents</p> <p>Chapter 22: Antidysrhythmic Agents</p> <p>Chapter 23: Anti-anginal Agents</p>	Quiz #3: Available Oct 18-21.
7 Oct 18 th .	<p><u>Drugs affecting the Cardiovascular and Renal system</u></p> <p>Drugs for hypertension</p> <p>Diuretics</p>	<p>Chapter 24: Antihypertensive Agents</p> <p>Chapter 25: Diuretic Agents</p>	
8 Oct 25 th .	<p><u>Drugs affecting the Cardiovascular and Renal systems</u></p> <p>Drugs for Coagulation Disorders</p> <p>Drugs for Lipid Disorders</p>	<p>Chapter 27: Coagulation Modifier Agents</p> <p>Chapter 28: Antilipemic agents</p>	Quiz #4: Available Nov 1-4.
9 Nov 1 st .	<p><u>Drugs affecting the Endocrine System</u></p> <p>Drugs for Thyroid Disorders</p> <p>Drugs for Diabetes</p> <p><u>Drugs affecting the Respiratory system</u></p>	<p>Chapter 30: Thyroid and Antithyroid Agents</p> <p>Chapter 31: Antidiabetic agents</p> <p>Chapter 36: Bronchodilators and Other Respiratory Agents</p>	

10 Nov 8 th .	<u>Anti-infective and Anti-inflammatory Agents</u> Drugs for Bacterial infections Drugs for Viral infections	Chapter 37: Antibiotics Chapter 38: Antiviral agents	Quiz #5: Available Nov 15-18.
11 Nov 15 th .	<u>Anti-infective and Anti-inflammatory Agents</u> Drugs for TB Drugs for Fungal infections Drugs for inflammation and rheumatic conditions.	Chapter 39: Anti- Tuberculosis Agents Chapter 40: Antifungal Agents Chapter 43: Anti - inflammatory, Antirheumatic, and Related Agents.	
12 Nov 22 nd .	<u>Drugs affecting the Gastrointestinal system</u>	Chapter 49: Acid-Controlling Agents Chapter 50: Antidiarrheals and Laxatives Chapter 51: Anti-emetic and Antinausea Agents	Quiz #6: Available Nov 29-Dec 2.
13 Nov 29 th .	<u>Miscellaneous Therapeutics: Dermatological, Ophthalmic, and Otic Agents</u> Drugs for Skin Disorders Drugs for Eye and Ear disorders	Chapter 55: Dermatological agents. Chapter 56: Ophthalmic agents (Focus on glaucoma, and IOP) Chapter 57: Otic agents	
14 Dec 6 th	REVIEW		
15	FINAL EXAMINATION		Date: Available Dec 12-16.