



A POLYTECHNIC INSTITUTION

School of Health Sciences

Program: Bachelor of Technology in Nursing

**NURS 1060  
Pharmacology**

**School of Health Sciences  
Program: Bachelor of Technology in Nursing**

Start Date: January 10, 2005

End Date: May 9, 2005

Taken in: Level 3-4

Course Credits: 2

Total weeks: 17

Hours/week: 2

Total hours: 34

**Prerequisites**

- NURS 2000 - Applied Nursing Science 2
- NURS 2030 - Nursing Practicum 2
- BHSC 2203 - Physiology & Pathophysiology 2

**Prerequisite for:**

- NURS 4530 - Nursing Practicum 5
- NURS 7100 - Community Nursing
- NURS 7030 - Nursing Practicum 5

**Course Description**

This course will present important concepts and principles related to pharmacology. The course will assist students to relate drug action(s) to patient physiology and/or pathophysiology and to anticipate effects based on this understanding. Interventions related to monitoring patient response to drugs will be emphasized. The role of the health care professional in health promotion and patient teaching will be discussed. Drug classifications will be presented to assist the learner to appreciate the scope of pharmacological treatment and to sort, categorize and retrieve information about selected drugs.

This course also introduces students to on-line learning and assists students to improve computer literacy skills required for clinical practice.

**Detailed Course Description**

Nursing 1060 facilitates the development of a pharmacology knowledge base and an understanding of the legal and ethical responsibilities related to the administration of medications. The course emphasizes the need to continually update pharmacology knowledge in order to practice safely.

**Evaluation**

Midterm Exam (Multiple choice questions & Problem based exercise)	30%	To successfully complete this course, the student must:
Final Exam (Multiple choice questions & Problem-based exercise)	30%	
Case Work	20%	
Seminars	10%	

1. Participate at least weekly in on-line case discussions within individual groups
2. Participate in seminars.
3. Summarize group work as assigned.

Participation	10%	4. Complete all assignments.
<b>Total</b>	<b>100%</b>	5. Achieve a combined average of 50% in exams. 6. Achieve a final mark of 50%.

Students who do not meet the participation requirement or who do not comply with other BCIT Policies will receive an Unsatisfactory standing and will therefore not pass this course.

### Course Learning Outcomes/Competencies

The student will:

1. Apply knowledge of pharmacokinetics and pharmacodynamics to selected drug categories.
2. Use a drug classification system as an information source for selected drugs.
3. Relate specific drug action(s) to human physiology and/or pathophysiology to predict therapeutic and adverse effects.
4. Explain assessments required when administering medications and monitoring patients for therapeutic drug effects, adverse effects, toxicity and drug interactions.
5. Discuss nursing responsibilities related to health promotion and patient teaching.
6. Discuss a variety of legal and ethical nursing issues related to pharmacology.
7. Apply selected pharmacological concepts and principles to patient situations.
8. Demonstrate on-line learning skills including accessing course materials and resources, communicating via e-mail, bulletin board discussion groups, seminars and taking exams.

### Process Threads

#### Professionalism

Students develop a knowledge base regarding complex health problems and pharmacology. They anticipate and prepare for possible patient care problems on acute nursing units. They explore cases and respond with sound clinical judgement and advocate for the patient. Students explore the curative/restorative aspects of pharmacology.

#### Communication

Students improve computer literacy by using Internet course material and resources and by communicating by e-mail and asynchronous and synchronous discussion groups. Students thoughtfully discuss case questions via bulletin board. Students use word processing in compiling group assignments. Students facilitate group functioning to achieve course goals.

#### Systematic Inquiry

Students use questioning and feedback to help them think critically. Students compare their own work to work done by others and take action to improve own clinical decision making. Students develop independent clinical reasoning. Students

develop creative strategies when addressing problems by considering alternative ways of viewing a situation.

### **Professional Growth**

Students focus on facilitating group learning by sharing accurate, relevant information in a professional manner. Students assume responsibility for learning and becoming self-starters. Students value continually updating pharmacology knowledge. Students are responsible and accountable for their actions.

### **Creative Leadership**

Students use facilitation skills within groups so they function productively. They demonstrate credibility, accountability, assertiveness, problem solving, judgement and initiative within groups. Students propose creative ways of solving problems related to drug therapy.

### **Technical Skill**

In the case studies they are studying, students discuss rationales and nursing responsibilities related to administration of medications and to the assessment of patients who receive medications. Students calculate safe doses, calculate infusion rates, problem solve how to deal with incompatibility issues and propose age-related adaptations in relation to drug therapy. Students develop skills in using educational technology.

### **Required Learning Resources**

1. Aschenbrenner, D. S., Cleveland, L. W., & Venable, S. J. (2002). Drug therapy in nursing. New York: Lippincott.
2. Canadian Nurses Association. (2002). Code of ethics for registered nurses. Ottawa: Author. (Available online under LINKS in Action Menu above.)
3. Registered Nurses Association of British Columbia. (2003). Standards for registered nursing practice in British Columbia. Vancouver: Author. (Available under LINKS in Action Menu above.)
4. A pharmacology handbook is required. Deglin, J., & Vallerand, A. (2003). Davis's drug guide for nurses (9th ed.) Philadelphia: F.A. Davis is highly recommended.
5. A medical-surgical text is required.
6. A diagnostic tests handbook is required.

### **Information for students (summarized from course outline)**

**Assignments:** Late assignments will not be accepted for marking. Assignments must be done on a group basis unless otherwise specified by the instructor.

**Makeup Exams:** There will be no makeup exam unless documented medical reason or extenuating circumstances. If you miss an exam without prior arrangement, you will receive **zero** marks. The instructor must be notified prior to the scheduled exam.

**Ethics:** BCIT assumes that all students attending the Institute will follow a high standard of ethics. See link to online policy on cheating and plagiarism below. Incidents of cheating or plagiarism may result in a grade of **zero** for all the work involved, for all of the parties involved.

**Attendance:** The attendance policy will be enforced. See link below. Attendance will be based on weekly online discussion postings and monthly seminars.

**Illness:** A doctor's note is required for any illness causing you to miss assignments or exams. At the discretion of the instructor, you may complete the work missed or have the work prorated. See Student Medical Certificate form.

**Attempts:** Students must successfully complete a course within a maximum of three attempts at the course. Students with two attempts in a single course will be allowed to repeat the course only upon special written permission from the Associate Dean. Students who have not successfully completed a course within three attempts will not be eligible to graduate from the appropriate program.

**Course Outline Changes:** The material or schedule specified in the printed course outline may be changed by the instructor. If changes are required, they will be announced via email and the course schedule and the online calendar.

The following BCIT policies apply to this course and can be viewed by clicking on the policy name:

Policy #5013 Course Outlines  
Policy #5410 Evaluation of students  
Policy #5250 Cheating and Plagiarism  
Policy #5201 Attendance  
Policy #3501 Responsible Use of Information Technology  
Policy #5251 Student Conduct

BCIT Nursing Program Policies - click on Links in the Action Menu.

Online learning strategies will be used to assist the learner to develop their knowledge of pharmacology and related legal and ethical issues. Concepts and principles of pharmacology will be explored using patient case discussions, accessing databases, instructor consultation and small group seminars.

The course will commence with an orientation to online learning. The student will be expected to demonstrate online learning skills including accessing resources and communicating via email.

Students will participate in ongoing evaluation of the course. Students are welcome to provide evaluative comments throughout the course. See the Course Comments and Questions Topic in the discussion area. A course evaluation survey will be completed at the end of the term.

#### **Examination Details**

Two online examinations are scheduled for this course. The midterm exam is scheduled for Week 9 and the final exam will be scheduled during exam week.

#### **Midterm Exam (online)**

**30% of final mark**

The midterm is a 2 hour open-book exam that includes multiple choice questions and a problem-based patient care exercise. The exam includes course content from modules 1 - 4.

Multiple choice questions: 15 marks

Problem-based exercise: 30 marks

In part 1 of the problem-based exercise, the student will be presented with initial information on the patient case. The student must **explain** at least five pharmacological issues and/or concerns related to the case. In part 2 of the problem-based exercise, the student will be provided with additional information on the patient case. The student will then **list** additional issues and concerns, and

**explain the specific actions** they will take to provide safe and effective drug therapy for this patient. The patient case includes **key issues and concerns** that must be addressed to receive full marks.

Marks will be distributed as: 10 marks for part 1

20 marks for part 2

Total: 30 marks

**Final Exam (online)**

**30% of final mark**

The final exam is a 2 hour open-book exam that will focus on course content in Modules 5 - 7.

Multiple choice questions: 15 marks

Problem-based exercise: 30 marks

In the problem-based exercise, the student will be presented with a patient case. For part 1 of the problem-based exercise, the student must **list** at least five **pharmacological** issues and/or concerns related to the patient's at-home and/or pre-operative drug therapy, and provide an **explanation** of how these issues and/or concerns **relate to the patient**. For part 2 of the problem-based exercise, the student will identify issues and/or concerns related to the patient's current in-hospital drug therapy and anticipated discharge. For each issue or concern, the student will describe **appropriate actions or nursing interventions, and explain the rationale for these actions/interventions**. The patient case includes **key issues and concerns** that must be addressed to receive full marks.

Marks will be distributed as: 10 marks for part 1

20 marks for part 2

Total: 30 marks

NOTE: Open book permits the use of the course textbook and drug handbook **ONLY** during the exams. Access to any other resource such as personal notes from the course material or online resources is strictly prohibited.

**STUDENTS MUST ACHIEVE A COMBINED AVERAGE OF 50% ON THESE EXAMS TO PASS THE COURSE.**

**Case Work and Assignment Details**

**20% of final mark**

The assignments in this course involve weekly patient case discussions and two interactive seminars. Students will be evaluated on the quality of their work, reporting skills, communication between group members and instructor, and the ability to make work succinct but accurate.

Students need to access the course at a minimum, on a weekly basis. Assignments must meet level 3 requirements for content depth, accuracy and thoroughness. Students' work must reflect application of theory to practice situations.

As assigned, students must assume reporting responsibilities for their group and post assignments on time, in the correct location and in the correct format. Students must participate in all seminars.

Case work marks are awarded for group work and reports.

**PLEASE NOTE: ALL GROUP WORK IS DUE BY SUNDAY AT MIDNIGHT.**

### **Seminars**

**10% of final mark**

Seminars are scheduled for a maximum of 2 hours twice in the term (please see calendar and course outline for dates and times). The seminars are designed as an opportunity for students to engage in a dialogue with their instructors and peers to clarify difficult concepts, discuss patient issues and to explore pharmacological concepts and principles within the context of their practicum experiences. This will be accomplished through student presentations to be held during the seminar times. The instructor will assign the groups and the topics. Details will be available during orientation and also may be viewed under the Assignments section of the course.

### **Participation**

**10% of final mark**

Participation marks will be assigned for online discussion within assigned groups, submitting special assignments as required and actively participating in seminars. Self evaluation will be 5% of this mark. This means that students will evaluate their own performance with 5% of the participation mark. Each student will submit their own assigned mark along with a paragraph explaining the self-assigned mark. The instructor will assign the remaining 5%.

### **Course Schedule**

Please refer back to the online schedule/calendar for up-to-date information on the class schedule.

■ **Verification**

I verify that the content of this course outline is current.

Deborah Yates  
Authoring Instructor

5 January 05  
Date

I verify that this course outline has been reviewed.

Katherine Doyle  
Program Head/Chief Instructor

5 January 05  
Date

I verify that this course outline complies with BCIT policy.

Heenan  
Dean/Associate Dean

5 January 05  
Date

Note: Should changes be required to the content of this course outline, students will be given reasonable notice.