



**I. COURSE DESCRIPTION:**

This course introduces the learner to the concepts of pharmacology as selected drug groups are studied. The course will emphasize the role and responsibilities of the practical nurse in the administration and monitoring of client medications. This course is also designed to assist the learner to acquire the knowledge and master the mathematical skills required to safely calculate drug dosages.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Explain general concepts related to pharmacology:

Potential Elements of the Performance:

- describe relevant policies and legislation related to drug administration in Canada.
- describe various forms of medication administration.
- identify various routes of medication administration.
- differentiate between the concepts of pharmacodynamics and pharmacokinetics

2. Utilize basic math skills to accurately calculate drug dosages:

Potential Elements of the Performance:

- basic mathematical calculations.
- solve dosage calculation problems using a selected formula for oral and parenteral routes.
- calculate a safe pediatric dose based on weight.

3. Describe the principles of medication administration:

Potential Elements of the Performance:

- describe the six rights of safe medication administration.
- relate the nursing process to administration of medications
- identify routes of administration and equipment used.
- identify various forms of drug preparation.
- interpret the components of a medication order.
- identify the meanings of standard abbreviations used in medication administration.
- identify the necessary information on a medication profile.
- analyze errors using practical examples of medication administration.

4. Explain the action and interaction within the body of selected pharmaceutical preparations and the impact on nursing care:

Potential Elements of the Performance:

- discuss relevant information related to administering medications for each of the drug classifications.
- explain safe practices in administering and monitoring medications following the Standards from the College of Nurses of Ontario.
- formulate relevant health teaching related to medication administration

**III. TOPICS:**

1. Antiinfectives and Antiinflammatory Agents
  - antibiotics
  - antivirals
  - antituberculars
  - antifungals
  - antimalarials, antiprotozoals, and antihelminthics
  - antiseptics and disinfectants
  - anti-inflammatory antirheumatoid and related agents
2. Drugs Affecting Fluid and Electrolyte Balance
  - diuretics
  - agents affecting volume and ion content of body fluids
3. Anesthetics and Analgesics
  - local and general anesthetics
  - narcotic and non-narcotic analgesics
4. Drugs Affecting Integumentary System
  - As above
5. Drugs Affecting Respiratory System
  - bronchodilators
  - antihistamines
  - nasal decongestants
  - antitussives
  - mucolytics
  - cold remedies
6. Drugs Affecting Cardiovascular System
  - drugs to treat heart failure
  - antiarrhythmics
  - antianginals
  - antihypertensives
  - drugs used in hypotension and shock
  - drugs affecting blood coagulation
  - drugs for hyperlipidemia

7. Drugs Affecting Gastrointestinal System
  - antacids and acid controllers
  - laxatives
  - antiemetics
  - antidiarrheals
  - nutritional supplements
  - vitamins and minerals

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Clayton, B. and Stock Y. (2004). *Basic pharmacology for nurses*. (13<sup>th</sup> ed.). St. Louis, MO: Mosby.

Clayton, B. and Stock Y. (2004). *Basic pharmacology for nurses: Student learning guide*. (13<sup>th</sup> ed.). St. Louis, MO: Mosby.

**Recommended Resources:**

Gray Morris, D. (2002). *Calculate with confidence*. (3<sup>rd</sup> ed.). St. Louis, MO: Mosby.

Skidmore-Roth, L. (2005). *Nursing drug reference* (18<sup>th</sup> ed.). St. Louis, MO: Mosby.

College of Nurses of Ontario (2002). *Medication administration standards for RNs and RPNs*. (available at [www.cno.org](http://www.cno.org) )

**V. EVALUATION PROCESS/GRADING SYSTEM:**

1. The pass mark for this course is 60%.
2. Evaluation Methods:

Unit Tests (4 in total, 25% each)	100%
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3. There are no supplemental tests/rewrites in this course.

The following semester grades will be assigned to students in post-secondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	4.00
A	80 – 89%	4.00
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

**Note:** For such reasons as program certification or program articulation, certain courses require minimums of greater than 50% and/or have mandatory components to achieve a passing grade.

**A minimum of a “C” grade is required to be successful in all PNG coded courses.**

It is also important to note, that the minimum overall GPA required in order to graduate from a Sault College program remains 2.0.

**VI. SPECIAL NOTES:**

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 703 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VIII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.