

Fond du Lac Tribal and Community College
COURSE OUTLINE FORM

03/19/19

Please return this form to the college vice president of academic affairs and the chairperson of the Academic Affairs and Standards Council (AASC)

1. Prepared by: _____
2. Date submitted: _____
3. Date approved: 3/23/22 Date revised _____
4. Department/discipline: Nursing
5. Department(s) endorsement(s): _____
(Signatures of the person(s) providing the endorsement are required.)
6. Course Title: Nursing Pharmacological Concepts and Medication Calculations I
Abbreviated course title for Transcripts (25 characters or less): Pharm Concepts I
7. Course Designator: NURS 8. Course Level: 1002
9. Number of Credits: Lecture 2 Lab _____
10. Control Number (on site) _____ Control Number (online) 40

11. Catalog/Course description:

This course introduces the nursing student to pharmacological concepts including mathematical dosage calculations utilized for medication administration to patients across the lifespan. Pharmacology principles introduced in this course will include pharmacotherapeutics, pharmacokinetics, pharmacodynamics, drug classification, safety, potential adverse medication reactions, drug toxicity, terminology, and abbreviations needed to interpret medication orders. This course also introduces nursing judgment used in drug therapy including appropriate medication administration, safety considerations, patient education, and developmental considerations. Pharmacotherapeutic selection for common acute and chronic health problems across several body systems will be covered. Mathematical skills covered in this course include drug measure systems, reading medication labels, and arithmetic necessary for clinical calculations for oral, topical, and parenteral routes of medication administration. This course is intended to be taken in the first semester of the Nursing program. (Prerequisite: Acceptance to the Nursing program).

12. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses

Prerequisite(s): Acceptance to the Nursing program

Co-requisite:

13. **Course Materials** (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).

TBD

14. **Course Content** (Provide an outline of major topics covered in course)

1. General principles of pharmacotherapeutics, pharmacokinetics, and pharmacodynamics.
2. Medication classification and categories (therapeutic and pharmacologic).

3. Oral, topical, and parenteral routes of medication.
4. Medication dosage calculations:
 - a. Convert units of measure from different measurement systems
 - b. Calculate oral and topical medication dosages
 - c. Calculate intramuscular, subcutaneous, intradermal, and intravenous injectable medications
 - d. Calculate IV drip rates
 - e. Calculate IV medications
 - f. Calculate weight-based medications
 - g. Calculate medications requiring reconstitution
5. Principles of safe medication administration.
6. Legal and ethical considerations with medication administration.
7. Adverse drug reactions and appropriate interventions.
8. Monitoring for therapeutic response and potential side effects or complications of medication therapy.
9. Principles of medication orders including terminology, abbreviations, and interpretation.
10. Patient education related to medications and patient adherence to medication therapy.
11. Nursing process applied to medication administration.
12. Pharmacotherapeutic selection for common acute and chronic health problems across the following systems:
 - a. Respiratory conditions
 - b. Cardiovascular conditions
 - c. Gastrointestinal conditions
 - d. Endocrine conditions

15. Learning Goals, Outcomes, and Assessment

At FDLTCC we have 4 Competencies Across the Curriculum (CAC) areas. They are as follows:

- A. Information Literacy (the ability to use print and/or non-print tools effectively for the discovery, acquisition, and evaluation of information.)
- B. Ability to Communicate (the ability to listen, read, comprehend, and/or deliver information in a variety of formats.)
- C. Problem Solving (the ability to conceptualize, apply, analyze, synthesize, and/or evaluate information to formulate and solve problems.)
- D. Culture (knowledge of Anishinaabe traditions and culture, knowledge of one’s own traditions and culture, knowledge of others’ traditions and cultures, culture of work, culture of academic disciplines and/or respect for global diversity.)

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

Learning Outcomes	Competencies (CAC)	Cultural Standards
Discuss the principles of pharmacology, pharmacotherapeutics, pharmacokinetics, and pharmacodynamics to medication therapy throughout the lifespan.	A, C	1, 2, 7
Demonstrate an understanding of common medications, classifications,	A, D	1, 2

dosages, routes, desired effect, common side effects and required monitoring and evaluation criteria, according to the body systems.		
Describe principles of safe administration of medications.	A, C	1
Accurately interpret medication orders.	B, C	5
Demonstrate accuracy in computation of medication doses for oral, parenteral, weight based, IV medications, and medications requiring reconstitution.	B, C	1, 5
Develop a systematic method of clinical decision making based on the nursing process to guide safe medication administration.	C	2, 6, 7
Explain patient teaching related to pharmacological agents.	A, B, D	1, 2, 6
Explain the legal and ethical implications/aspects of medication administration.	A, B, D	1, 4

WINHEC Cultural Standards:

- 1. GIKENDAASOWIN – *Knowing knowledge:*** To develop human beings who value knowledge, learning, and critical thinking and are able to effectively use the language, knowledge, and skills central to an Ojibwe-Anishinaabe way of knowing.
- 2. GWAYAKWAADIZIWIN – *Living a balanced way:*** To develop balanced human beings who are reflective, informed learners who understand the interrelatedness of human society and the natural environment, recognize the importance of living in harmony with creation, and are able to apply a systems approach to understanding and deciding on a course of action.
- 3. ZOONGIDE'EWIN – *Strong hearted:*** To increase the students' capacity to live and walk with a strong heart, humble and open to new ideas and courageous enough to confront the accepted truths of history and society.
- 4. AANGWAAMIZIWIN – *Diligence and caution:*** To develop students' capacity to proceed carefully, after identifying, discussing, and reflecting on the logical and ethical dimensions of political, social, and personal life.

- 5. **DEBWEWIN – *Honesty and integrity***: To increase students' capacity to think and act with honesty and integrity as they understand and face the realities of increasingly interdependent nations and people.
- 6. **ZAAGI' IDIWIN – *Loving and Caring***: To encourage students' acceptance of the diversity within their school, community, and environment by developing healthy, caring relationships built on respect for all.
- 7. **ZHAWENINDIWIN – *Compassion***: To expand students' knowledge of the human condition and human cultures and the importance of compassion especially in relation to behavior, ideas, and values expressed in the works of human imagination and thought.

16. **Minnesota Transfer Curriculum (MnTC)**: List which goal area(s) – up to two – this course fulfills.

See www.mntransfer.org

Goal Area(s): _____

Provide the specific learning outcomes as listed on the mntransfer.org website that pertain to this course.

17. Are there any additional licensing/certification requirements involved?

_____ Yes No

Provide the required documentation to show course meets required licensing/certification standards.

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