Hibbing Community College
Course Outline

NURS 0950: Essential Mathematics for Nurses

A. COURSE DESCRIPTION

Credits: 1
Lecture Hours/Week: 1
Lab Hours/Week: *
OJT Hours/Week: *

Prerequisites:
This course requires either of these prerequisite categories
1. MATH 0921 - Fundamental Mathematics
   Or
2. A score of 69 on test Accuplacer Arithmetic

Corequisites: None
MnTC Goals: None

The course covers mathematics for clinical calculations which includes: arithmetic review, drug measure systems, and reading medication labels. Ratio-proportion and formula methods will be used to teach dosage calculations. This course is intended for students who have been admitted to the Nursing Program.

B. COURSE EFFECTIVE DATES: 09/15/1998 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Arithmetic Review
   A. Relative value, addition, and subtraction of decimals
   B. Multiplication and division of decimals
   C. Solving common fraction equations

2. Introduction to Drug Measure Systems
   A. Metric system/System International (SI)
   B. Unit, percentage, mill equivalent, ratio, and household measures

3. Reading Medication Labels
   A. Reading oral medication labels
   B. Reading parenteral medication labels
   C. Reconstitution of powdered drugs

4. Ratio and Proportion Dosage Calculation
   A. General medication order and administration safety guidelines
   B. Upper and lower limits based on body weight

5. Intravenous (IV) Calculations
D. LEARNING OUTCOMES (General)

1. Students will add, subtract, multiply and divide whole numbers, fractions, and decimals.
2. Students will calculate percentages.
3. Students will interpret medication orders accurately using official abbreviations in current practice.
4. Students will identify the commonly used units of measure in the metric/SI system.
5. Students will express metric weights and volumes using correct notation rules.
6. Students will convert units of measure between and within various systems.
7. Students will distinguish dosage strength and volume.
8. Students will calculate ordered oral and parenteral drug doses.
9. Students will calculate safe dose ranges based on body weight.
10. Students will interpret medication labels.
11. Students will create medication labels following reconstitution.
12. Students will calculate IV flow rates and IV drip rates.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

HCC COMPETENCIES MET:
Communicating Clearly & Effectively
Working Productively and Cooperatively
Thinking Creatively and Critically
Practicing Culture, Economic, and Environmental Sustainability

STUDENT CONTRIBUTIONS:
The student will attend class regularly, participate in class discussion, complete required assignments, in class exercises, exams, and take a comprehensive final examination. The student will spend a minimum of two hours completing assignments for every hour in class. These must be accomplished in such a way that minimum standards set by the instructor are met.

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

SPECIAL INFORMATION:
To request disability accommodations, please contact the disability coordinator on campus. Students are encouraged to discuss their individual needs with the instructor.

AASC APPROVAL DATE: December 13, 2016

REVIEW DATE: December 2021