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Policy U-8
FLORIDA STATE UNIVERSITY
COLLEGE OF NURSING

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TITLE: **DRUG MATH**

POLICY: A student must achieve 100% accuracy to meet the drug math benchmarks for dosage and calculation in each of the following courses: NUR 3225L, NUR 4445L, and NUR 4766L. If a student fails to achieve 100% by the third test, the student will be required to withdraw from the clinical course.

RATIONALE: Any student's participation in clinical experience requires that she/he meet the academic and professional standards of behavior that ensure patient comfort and safety.

PROCEDURE:

1. Dosage and drug math calculation tests in NUR 3225L and NUR 4766L will be administered prior to the clinical rotations If any student fails to achieve 100% by the third test in each course, the student will be required to withdraw from the clinical course.

2. Pediatric dosage and drug math is introduced in NUR 4445: Nursing Care of Women, Children and Families and the drug math test is administered prior to the pediatric clinical rotation in NUR 4555L. If any student fails to achieve 100% by the third test, the student will be required to withdraw from the clinical course.

3. Three drug math competency exams will be scheduled (one week apart) each semester

4. Demonstration of drug math competency by achieving 100% will provide evidence that the student is prepared for the drug math in clinical experiences.

5. The College of Nursing will provide simple calculators for use with the tests.

6. Sixty (60) minutes will be allowed for the exam.

7. Sample questions will be available for student review.

8. Student mentors may be available for tutoring.

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Attachment #1

DRUG MATH OBJECTIVES Associated with NUR 3225L

In order to pass Semester I Drug Math exam with 100% accuracy the student will:

1.   Recognize abbreviations for recommended times for administering medications.

2.   Be able to convert between military time and A.M.-P.M. time.

3.   Be able to read a drug label.

4.   Be able to convert between apothecaries' and metric system of measurement.

5.   When given a statement of physician order, will be able to determine how much medication the nurse would administer to the patient (oral drugs, parenteral drugs, and dosages measured in units).

6.   Accurately calculate the following: (a) milliliters given per hour (ml/h), (b) milliliters given per minute (ml/min), (c) drops given per minute (gtt/min), and (d) when the total volume and length of time over which the IV is to infuse is given.

7.   Be able to calculate reconstitution problems for oral or parenteral administration.

8.   Be able to convert a heparin drip from units/hour to milliliters/hour, and vice versa.

DRUG MATH OBJECTIVES Associated with NUR 4766L

In order to pass the Semester III adult drug math exam with 100% accuracy the student will:

1.   Recognize abbreviations for recommended times for administering medications

2.   Be able to convert between military time and A.M.-P.M. time

3.   Be able to read a drug label

4.   Be able to convert between apothecaries' and metric system of measurement

5.   When given a statement of physician order, will be able to determine how much medication the nurse would administer to the patient (oral drugs, parenteral drugs, and dosages measured in units).

6.	Accurately calculate the following: (a) milliliters given per hour (ml/h), (b) milliliters given per minute (ml/min), (c) drops given per minute (gtt/min), and (d) when the total volume and length of time over which the IV is to infuse is given.

7.	Be able to calculate reconstitution problems for oral or parenteral administration.

8.	Be able to convert a heparin drip from units/hour to milliliters/hour, and vice versa.

9.	When given a percentage solution, be able (a) to convert to grams per milliliters and (b) to calculate answers to problems.

10..	When given a problem using solutions in the form or 1:1,000, be able (a) to identify the constitution of the solution and (b) to calculate answers to problems.

11.	Given the patient's weight, amount of medication, amount of intravenous fluids, and physician's order, calculate the following infusion drips: (a) mcg/kg/min, (b) mcg/min, and (c) mg/kg/hour, (d) ml/hr, (e) mg/hr.

PEDIATRIC DRUG MATH OBJECTIVES Associated with NUR 4555L

1.	Recognize abbreviations for recommended times for administering medications.

2.	Be able to convert between military time and A.M.-P.M. time.

3.	Be able to read a drug label.

4.	Be able to convert between apothecaries' and metric system of measurement.

5.	When given a statement of physician order, will be able to determine how much medication the nurse would administer to the patient (oral drugs, parenteral drugs, and dosages measured in units).

6.	Accurately calculate the following: (a) milliliters given per hour (ml/h), (b) milliliters given per minute (ml/min), (c) drops given per minute (gtt/min), and (d) when the total volume and length of time over which the IV is to infuse is given.

7.	Be able to calculate reconstitution problems for oral or parenteral administration.

8.	When given a percentage solution, be able (a) to convert to grams per milliliters and (b) to calculate answers to problems.

9.	When given a problem using solutions in the form or 1:1,000, be able (a) to identify the constitution of the solution and (b) to calculate answers to problems.

10.   Be able to convert a heparin drip from units/hour to milliliters/hour, and vice versa.

11.   Given the patient's weight, amount of medication, amount of intravenous fluids, and physician's order, calculate the following infusion drips: (a) mcg/kg/min, (b) mcg/min, and (c) mg/kg/hour, (d) ml/hr.

12.   When given a child's weight, calculate low and high dose range for each dose and for the day.

13.   When given an infant's weight, calculate intravenous fluid requirements for the day and for the hour.