Name of Course: Nursing 302 Mathematics of Drugs and Solutions, 3 units.

Faculty Contact Information:

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Office Hours: Wednesday 12:00-1:00, 4:00-5:00

Course Description: In this course, after a review of relevant basic arithmetic, the student will use concepts of higher mathematics to gain knowledge of measurement systems, including apothecary and metric, and techniques, including solving for an unknown, for computing medication dosages, I.V. flow rates, and weight related dosages for children and adults.

Credit: 3 units

Transferability: Conditional

Course Outcomes: At the end of this course, with appropriate study and practice in the classroom, the student will be able to calculate medication dosages, I.V. flow rates and weight related dosages for children and adults. The student will demonstrate this by being able to:

1. Perform computations correctly using fractions, decimals, ratios, percents and proportions.
2. Identify differences between metric, apothecary and household measurement systems and be able to convert measurements from one system to another.
3. Recognize and select the appropriate equipment for the medication, dosage, and method of administration ordered.
4. Read and interpret calibrations of utensils used in administering medications.
5. Interpret prescription orders and medication administration records.
6. Correctly read and interpret medication labels.
7. Identify and prevent common medication errors.
8. Calculate drug dosages for oral and parenteral drugs.
9. Calculate I.V. flow rates for electronic or manual infusion systems.

Required Textbooks and Supplies:

LAHC Student Handbook located online at:
http://www.lahc.edu/classes/nursing/currentrnstudents.html
**Course Policies:** See College Catalog and Course Syllabus.

**Plagiarism** and any form of academic dishonesty is not tolerated with the Los Angeles Community College District (LACCD) and will result in a zero for the assignment in question and a possible one to two day suspension from the class (in most cases this will result in a fail for the course). Any students with subsequent incident of plagiarism will be referred to the Vice President of Student Services and may be expelled from the nursing program. Please refer to Student Handbook for further information.

**Attendance Policy:** If the student is ill or has an emergency, please contact instructor as soon as possible **BEFORE** class meets. Nursing students are urged NOT to be absent, and are reminded that the student is responsible for **ALL** information given during class time.

**Course Evaluation:** The N302 course evaluation will be done either on-line through the website or in class. This evaluation must be filled out before a final grade can be given for the class. Your feedback is essential if any opportunity for positive change is to occur.

**College and Department Policies:** See College Catalog and Nursing Student Handbook (both on line).

**Board Policies/Accommodations:**
1. Nursing students requiring SPECIAL ACCOMODATIONS in a course must present official documentation of the type of accommodations required to the nursing faculty.
2. **Board Rule 9803.12.** Dishonesty, such as cheating, or knowingly furnishing false information to the college. Examples of academic dishonesty: A student copies from another student, to help an academically weaker student by providing answers to a test or using "crib" notes.
3. **Board Rule 9803.14.** Obstruction or disruption of classes, administration, disciplinary procedures, or authorized College activities.
4. **Board Rule 9803.19.** Alcohol and Drugs. Any possession of controlled substances which would constitute a violation of Health and Safety Code section 11350 or Business and Professional Code section 4230, any use of controlled substance the possession of which are prohibited by the same, or any possession or use of alcoholic beverages.

Please see college catalog for a listing of all District Board Rules.

**Course Grading:**

Exam scores and completion of homework assignments will determine the final course grade.

A   (90-100%)
B   (81-89%)
C   (75-80%)
D   (60-74%)
F   (Less than 60%)

There are no scheduled make up exams. Make up exams may be given at the instructor’s prerogative if major illness requires missing an exam. The student must communicate with the instructor prior to the exam date.
The highest grade obtainable for an exam taken after the scheduled testing day is 75%. Make-up exams may be multiple choice, fill-in, essay, or a combination of all the above. To receive a grade of "W" for the class, the student must drop the class by the end of the 6th week of the course.

**Learning Resources:**
- College or Nursing Department Library
- Computer Lab
- Learning Resource Center in Main Library
- Internet

**Methods of Instruction:**
- Selected/related Readings
- Lectures
- Discussion
- Demonstrations
- Critical Thinking and Problem Solving Exercises

**Study Time:** The College expects a minimum of two hours of study/preparation by the student for each hour of lecture. This means approximately a minimum of 6 hours of study for lecture for this course.

**Assignments:** See weekly assignment schedule. Please refer to this frequently in order to know what material to prepare for class. Students are expected to have read the assigned reading prior to lecture.

**Evaluation Method:**
- Weekly Quizzes 80 points
- Midterm Exam 100 points
- Final Exam 100 points
- Homework 20 points

**Total** 300 points

**Passing Grade (75%)** 225 points
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