## **Math Test Policy**

A math test shall be given to all students early in the Fourth Quarter of the RN, L VN, and L VN Transition Programs. The purpose of this test shall be to determine whether the student understands and is able to apply the basic mathematics required to safely administer medications to clients. As accurate administration of medications is critical to client safety, a perfect score shall be required to pass this test.

Students should practice math for medications prior to taking the Math Test and are expected to pass the Math Test the first time they take it. Students who fail the Math Test will be given a Plan for Improvement (PI) strongly encouraging them to take a math course, such as Math 250 offered at DeAnza College, or to undertake other substantial remediation in math prior to making any further attempts to pass the Math Test. After doing the remedial work, the students must complete the PI by scoring 100% on a second Math Test that must be taken no later than the end of Fourth Quarter.

L VN students who fail the second math test will not be allowed to graduate until they do pass the Math Test with a 100% score. They will be required to take a Withdrawal Without Penalty and encouraged to work harder to master the math prior to taking the Math Test the next time it is offered. These students must meet with the Executive Head of Nursing to arrange for this Withdrawal Without Penalty.

RN and L VN Transition students who fail the second Math Test will have their PI extended with a requirement that they must now complete the PI by scoring 100% on a third Math Test in early Fifth Quarter. Due to lead times required for planning Preceptorships, RN and L VN Transition students who fail the third Math Test shall not be allowed to progress to Sixth Quarter (the Preceptorship) the following quarter. Instead, they will be required to take a Withdrawal Without Penalty and encouraged to work harder to master the math before each subsequent attempt to pass the Math Test, until they do pass the Math Test with a 100% score. Thereafter, they may be rescheduled to resume progress in the Program. These students must meet with the Executive Head of Nursing to arrange for this Withdrawal Without Penalty .

Students may only take the Math Test on the dates and times scheduled by the Nursing Department. Typically this will be twice per quarter and additional tests will not be allowed. That means there will be many weeks between test dates. Students who need to repeat the Math Test are strongly encouraged to use this time to study, practice, and master the math before their next attempt.

The primary responsibility of preparing for the Math Test shall remain with the student. As the basic mathematics underlying "nursing math" (e.g., ratio and proportion) is commonly taught in secondary school, students are expected to have learned this math ~ they entered the Nursing Program. However, the Nursing Department has found that many nursing students need to refresh their knowledge of basic math and has adopted the following text:

Curren and Munday, Math for Meds. 7th Edition, W.1. Publications, Inc., San Diego, CA (1995)

which the Nursing Department requires that nursing students obtain and study prior to taking the Math Test. The text can be purchased through the Campus Bookstore and several copies; are available in the DeAnza Library .There is also a helpful Math Video available to the students in the Open Media Lab and the Nursing Skills Lab.

The Math Test will consist of 10 or more problems dealing, with nursing calculations for giving medications. Typical problems include: calculating medication dosages, doing IV flow rate calculations, and calculating total infusion times. To mimic real life situations, some of the problems may contain extraneous factors that do not enter into the calculation and the student will be expected to recognize these factors and ignore them. Calculators may be used to perform the arithmetic. However, the problems will not be multiple choice and students shall be required to show all their work. To receive credit for a correct answer, the work shown must be legible, the setup and method logical, and the solution mathematically correct.

Five minutes will be allowed per test question, which is more than enough time to solve each problem. Students are expected to use the extra time to double-check their work before handing in their test papers. Remember: a perfect score is required to pass.