

Nov. 6. 2013

THE COLLEGE OF STATEN ISLAND  
Department of Nursing

Course Outline                      Math 108: Mathematical Drug Calculations

Pre-requisites:                      Appropriate Score on CUNY Math Assessment  
Test or Math 020

Required Text:                      Medical Dosage & Calculations.(2012).10<sup>th</sup> Edition.  
Olsen, Giangrasso, Shrimpton.Pearson  
ISBN# 013215661X

Course Objectives

At the completion of this course students will be able to:

1. Demonstrate an understanding of basic mathematics.
2. Discuss the Drug Administration process.
3. Solve practical problems involving metric, and household units of measurement.
4. Convert from one unit of measure to another between systems as well as within a given system of measurement.
5. Calculate dosages using tablets, capsules, oral solutions and injectable drugs for parenteral therapy.
6. Identify common types of syringes and determine amount of solution in a syringe.
7. Calculate necessary amounts of medication needed in the preparation of nonparenteral solutions.
8. Calculate the rates of flow, length of infusion time and volume absorption of intravenous fluids.
9. Calculate safe pediatric dosage estimations.
10. Convert temperature from centigrade to Fahrenheit.
11. Have the ability to evaluate the appropriateness of the calculated answers.
12. Interpret medication labels.

Methods of Achieving Objectives:

1. Lecture, demonstrations, discussions
2. Homework assignments
3. Additional written hand-outs
4. Written quizzes and examinations

Attendance

The maximum number of absences will be 15% of the total class meetings, or 4 class hours. Unexcused absences beyond this maximum will result in a grade of WU or F.

## MTH 108 Course Outline

### Reading and Study Requirements

Textbook pages indicated for each topic listed in the course outline should be read prior to attending the lecture scheduled.

Students will find that Math 108 requires consistent study and review outside of the classroom. The course outline is a useful guide for development of good habits.

Students are advised to utilize the Tutoring Center in Room 1L 117 for problems in basic mathematics and Math 108 and Nursing Resource Center (5S).

The textbook must be brought to each class lecture.

### Evaluation

In order to achieve a passing grade, students must successfully complete all classwork, class tests, and Final Examination. This final grade in Math 108 is computed as follows:

Unit I	20%	A	90+ above
Unit II	20%	A-	88-89%
Unit III	20%	B+	85-87%
		B	80-84%
Final Exam	<u>40%</u>	B-	78-79%
Total	100%	C+	75-77%
		C	70-74%
		D	60-69%
		F	< 60%

Students are required to take all examinations. Missed examinations are considered as 0 (zero) grades. If students miss an examination, they must consult with the instructor within a week concerning a make-up examination.

Students must earn a minimum grade of C (70%) in Math 108