COLLEGE OF THE MARSHALL ISLANDS
COURSE OUTLINE

CIP No. 27.0301
NURS 101
Alpha Number

Math for Nurses
Course Title

Course Description
Introduces a variety of problem solving techniques that are useful for applications in nursing and allied health fields. Includes calculations of drug dosages and intravenous flow rates. Reviews basic arithmetic operations. Introduces the apothecary and metric systems of measurements, as well as conversions between the two systems, and basic statistics.

Course prepared by:  Math/Science & Nursing Departments  October 2007

<table>
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<tr>
<th>Hours per Week</th>
<th>Number of Weeks</th>
<th>Total Hours</th>
<th>Credits</th>
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<td>Lecture</td>
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<td>16</td>
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<td>Laboratory</td>
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<td>Seminar</td>
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Total Credit Hours 3

Purpose of Course:  Degree Requirement X
Degree Elective
Certification
Developmental
Other

Prerequisite(s)  MATH 95
ENG 100B and 100D
or placement into credit English

Signature, Curriculum and Assessment Committee Chairperson  May 5, 2010
Signature, Dean of Academic Affairs  5/5/10
Signature, Vice President of Academic and Student Affairs  5/5/10

Last date reviewed or revised: Sept. 2008
I. **Math for Nurses**  
**Course Title**

II. **Course Objectives**

A. General Outcomes

Students who complete this course will:
1. Accurately perform basic mathematics operations (NURS 1, 3)
2. Be proficient in using the metric, apothecary, and household systems of measurement and their associated abbreviations (NURS 1)
3. Accurately calculate drug dosages and IV flow rates (NURS 1)
4. Be familiar with basic statistics operations (NURS 1, 3)

B. Student Learning Outcomes

Upon completion of this course, the student will be able to:
1. Perform basic mathematics operations  
   a. Convert between Roman numerals and Arabic numerals  
   b. Solve ratios, proportions, and percents  
2. Apply various systems of measurement  
   a. Convert volume, weight, length, and temperature units between metric, apothecary, and household systems  
   b. Identify and use common abbreviations in medication calculations  
3. Accurately calculate drug dosages and IV flow rates  
   a. Calculate oral and parenteral drug dosages for pediatric, adult, and geriatric patients  
   b. Calculate IV flow rate using various IV administration tubing sets  
4. Use statistical information  
   a. Summarize statistical health reports  
   b. Analyze health data and apply to decision making situations

III. **Course Content**

This course teaches basic mathematics operations and accurate calculation of medication dosage.

1. Review fractions, decimals, percents, ratios, and proportions  
2. Roman and Arabic Numerals  
3. Metric, Household, and Apothecary measurement systems  
4. Oral and parenteral dosage calculations  
5. IV flow rate  
6. Medical abbreviations  
7. Basic statistics

IV. **Methods of Instruction**

1. Lectures  
2. Cooperative groups  
3. Modeling and supervised class practice  
4. Peer tutoring
V. Equipment and Materials

1. Overhead projector
2. VCR
3. Medical equipment (IV fluid, tubing and stand)
4. Calculator

VI. Suggested Methods of Evaluation

1. Tests, midterm, final exam
2. Quizzes
3. Homework / class work

Letter grades will be assigned per CMI grading policy
Course History Summary

Course Number: **NURS101 Math for Nurses (3)**

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