

BROOME COMMUNITY COLLEGE
Binghamton, New York

COURSE TITLE METRIC CONVERSIONS AND DOSAGES MAT 095

CLASS LECTURE HOURS 1 LAB HOURS 0 CREDIT HOURS 0

DIVISION DEAN Julia Peacock

DEPT. CHAIRPERSON Mary Woestman DATE September 2002

PREREQUISITE: MAT 092 Foundations for College Mathematics II or equivalent and Placement by Nursing department.

Learning objectives of Course:

The student should be able to:

1. Add/Subtract/Multiply/Divide whole numbers, fractions and decimals.
2. Round decimals to required place value.
3. Simplify complex fractions.
4. Apply factor/label method to dosage problems.
5. Convert in metric system.
6. Convert in apothecary system using Roman numerals to 50.
7. Convert in household system.
8. Convert among all three systems.
9. Apply all symbols and abbreviations used in all three systems.
10. Apply the "required" equivalents.
11. Interpret dosage problems, read labels and accurately perform all clinical calculations.
12. Calculate oral medications.
13. Calculate Parenteral medications.
14. Do all the calculations by hand as well as using a calculator.

CATALOG COURSE DESCRIPTION:

Common fractions and decimal fractions. Metric computations. Apothecary and household systems. Conversions of metric, apothecaries and household units. Calculations of dosage. Designed to meet the mathematics proficiency required for clinical nursing course.

1 class hour; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent and Placement by the Nursing Department.

MAT 095

Metric Conversion and Dosages

Course outline

Label Factor Method

- Introduction
- Overview: The Label Factor Method
- Relationships and Rationale
- Application of Label Factor Method
- Accuracy and Accountability

Metric System of Measurement

Basic Units

- Metric Abbreviations
- Metric Notations
- Comparing Metric Units
- Converting Units within the Metric System

Apothecaries System of Measurement Basic Units and Abbreviations Apothecaries Notations Comparing Apothecaries Units

- Converting Units within the Apothecaries System

Household System of Measurement

Household Units

- Household Notation
- Converting Units within the Household System

Conversion of Metric, Apothecaries and Household Units

Conversion from One System to Another

Calculation of Oral Medications Oral Medications The Medicine Cup Rounding Off Reading Labels

Calculation of Parenteral Medications

- Rounding off
- Reading Labels
- Calculating Dosages Obtained from Pre-mixed Solutions
- Units of Medication
- Reconstitution of Drugs in Powder Form