

CLASS NUMBER AND NAME:	RXN141A—BASIC HEALTHCARE MATH
TOTAL HOURS/ UNITS:	24 HOURS/2 UNITS
PREREQUISITES:	MDN161A—Medical Terminology I
TEXTS AND MATERIALS:	<i>Pharmacology: Principles and Applications</i> . Third Edition. Saunders 2012. (ISBN 9781437722573)
	Study guides provided by the instructor.
CLASS DESCRIPTION:	This course is designed for students to become proficient in pharmacological and medical measurement systems with their equivalency. This will include ratios and proportions, converting between measurement systems, calculating dosages by weight, pediatric dosage calculations, and dosage calculation for nonparenteral medications and parenteral medications and for diluting solutions.
CLASS OBJECTIVES:	The student will be able to convert units of measurement between systems and 12- and 24-hour time. Correct calculations of dosages of medication are also covered.
CLASS FORMAT OVERVIEW:	The class is conducted in lecture and instructor demonstrations, opportunity will be given for questions-and-answer discussion as well as tactile learning experiences.
REQUIREMENTS:	Time spent in preparation for or reflection on course lecture will approximate two hours outside of class for each lecture credit hour utilized by the instructor in delivery of the material and ¼ hour outside of class for each hour of structured lab time.
METHOD OF INSTRUCTION:	Each topic will be discussed thoroughly and will be supplemented with written materials. Class work and homework will give the student experiential opportunities.

ATTENDANCE:

It is expected that each student will be in class when class begins. Should the student arrive more than five minutes late they should notify the instructor of their presence, it will be up to the instructor to decide if the student has arrived in time to be counted as present- the instructor's decision is final.

80% attendance is mandatory
90% or above is mandatory for those who are in a full program and qualify for the externship

It will be the student's responsibility to learn of any assignments given in class when absent. Students out of uniform will be counted as absent.

TESTING:

Four quizzes will be given throughout the mod as well as a cumulative final exam. All quizzes, examinations, exercises and homework must be satisfactorily completed with a passing grade of 70% or better in order to pass the course.

A quiz or test may be retaken if the score is 69% or below. The highest grade for retakes will be a low C.

LATE TESTING:

A late test will result in a 10% penalty (Tests start with a B). All retakes and late tests must be scheduled with the instructor in a timely manner.

GRADING POLICIES:

The student will Pass the four chapter quizzes with a minimum grade of 70%.

Complete all homework assignments with at least 70% accuracy.

The students will participate in a minimum of 90% of in-class group assignments.

The final grade is computed on:

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|-------------|-----|
| 1. Quizzes | 60% |
| 2. Homework | 40% |

90-100%	A
80-89%	B
70-79%	C
60-69%	D
0-59%	F

ANTICIPATED LEARNING
OUTCOMES:

Upon completing this course, the student will be able to:

1. Demonstrate an ability to identify specific vocabulary relevant to the subject.
2. Understand and define the basic units of measurement in the metric, apothecary, and household measurements systems.
3. Demonstrate the ability to identify symbols use to write milliequivalents and units.
4. Demonstrate the ability to read the time of day on the international standard 24-hour clock and convert to the 12-hour clock.
5. Demonstrate the ability to convert from one length, volume, weight unit to another within and between the apothecary, metric, and household measurement systems.
6. Differentiate between the term proportion and ratio.
7. Determine the correct amount of medications to be administered given a dose, a drug order, or scenario.
8. Demonstrate the ability to calculate doses of non-parenteral drugs administered in solid or liquid form.
9. Determine the ability to calculate pediatric and geriatric doses based on body surface area and body weight based on kg.
10. Demonstrate the ability to calculate dosages of parenteral drugs administered in 1-cc, 3-cc syringes.

RX141A--BASIC HEALTHCARE MATH SCHEDULE

Week 1	<p style="text-align: center;">Chapter 7 The Metric System HW: 1 Hour* Read pages 114-115 CYU** 7-1</p>	<p style="text-align: center;">Chapter 7 Metric Length, Volume, and Weight HW: 1 Hour Read pages 116-120 CYU 7-2, 7-3, 7-4</p>	<p style="text-align: center;">Chapter 7 Apothecary and Household Systems HW: 1 Hour Read pages 121-123 CYU 7-5, Worksheet</p>	<p style="text-align: center;">Chapter 7 Review HW: 1 Hour Review Questions</p>
Week 2	<p style="text-align: center;">Chapter 7 Quiz HW: 1 Hour Read Chapter 8</p>	<p style="text-align: center;">Chapter 8 Time and Temperature Pages 127-130 HW: 1 Hour CYU 8-1, 8-2, 8-3</p>	<p style="text-align: center;">Chapter 8 Ratio and Proportion, Volume Conversions Pages 131-134 HW: 1 Hour CYU 8-4, 8-5</p>	<p style="text-align: center;">Chapter 8 Weight and Length Conversions Pages 135-141 HW: 1 Hour CYU 8-1, 8-2, 8-3</p>
Week 3	<p style="text-align: center;">Chapter 8 Review Pages 142-144 HW: 1 Hour Review Questions</p>	<p style="text-align: center;">Chapter 8 Quiz HW: 1 Hour Read Chapter 9</p>	<p style="text-align: center;">Chapter 9 Nonparenteral Doses Pages 147-150 HW: 1 Hour CYU 9-1, 9-2</p>	<p style="text-align: center;">Chapter 9 Formula Method and Dimensional Analysis Pages 151-156 HW: 1 Hour CYU 9-3, 9-4</p>
Week 4	<p style="text-align: center;">Chapter 9 Dosage Calculations Page 156 HW: 1 Hour CYU 9-5</p>	<p style="text-align: center;">Chapter 9 Reconstituting a Powder Pages 158-159 HW: 1 Hour CYU 9-6</p>	<p style="text-align: center;">Chapter 9 Body Surface Area (BSA) Pages 160-162 HW: 1 Hour CYU 9-7, 9-8</p>	<p style="text-align: center;">Chapter 9 Miligrams per Kilogram Page 163 HW: 1 Hour CYU 9-9</p>
Week 5	<p style="text-align: center;">Chapter 9 Review Pages 164-165 HW: 1 Hour Critical Thinking, Calculation Review & Review Questions</p>	<p style="text-align: center;">Chapter 9 Review Pages 164-165 HW: 1 Hour Worksheet</p>	<p style="text-align: center;">Chapter 9 Quiz HW: 1 Hour Read Chapter 10</p>	<p style="text-align: center;">Chapter 10 Parenteral Doses Pages 170-175 HW: 1 Hour CYU 10-1, 10-2</p>
Week 6	<p style="text-align: center;">Chapter 10 Parenteral Doses in Units Pages 176-179 HW: 2 Hours CYU 10-3, 10-4</p>	<p style="text-align: center;">Chapter 10 Review Page 181 HW: 2 Hours CYU 10-5, Critical Thinking, Review Questions</p>	<p style="text-align: center;">Chapter 10 Quiz</p>	<p style="text-align: center;">Make-up testing</p>

***HW: indicates the amount of homework for each topic. **CYU stands for Check Your Understanding**
This schedule is subject to change at the discretion of the instructor to meet the course learning objectives. The student is responsible for any missed information and handouts due to absences. Homework includes familiarizing yourself to the Calendar and Syllabus, textbook reading assignments, and homework from the textbook, plus practice handouts when appropriate to augment learning.