

Cedar Crest College

Mathematics for Health Care Professionals – Math 107

3 Credits
Spring 2010

Instructor: Melissa Ulicny

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610-504-5979, cell phone (between 9 am and 6 pm)

Office: Curtis Hall Rm 204

Text: *Calculate with Confidence 5th edition* – Deborah Gray Morris

A calculator and notebook is also needed for this course. (No graphing calculators.)

The use of cell phones as a calculator is NOT permitted!

Course Objectives:

1. To be able to complete basic math problems involving fractions, percents, and decimals.
2. To use ratio and proportions, analogies, formulas, and dimensional analysis when making conversions.
3. To be able to convert between and within different units of measure – specifically metric, English, and apothecary.
4. To be able to accurately calculate drug dosages with confidence
5. To practice problem solving strategies and skills throughout the semester.

Instructor Assistance: I would gladly help to clarify any areas of uncertainty during the semester.

Thurs: before and after class

Or by appointment

Attendance: Attendance will be taken at all classes. If you will be absent from class, I ask that you please write me an email or leave me a message as to your absence. It is your responsibility to get all missed information. You will be allowed one absence per semester. More than one absence will result in a 1% deduction from your course grade for each absence. **If you are absent from a test or quiz, a valid doctor's excuse is necessary to retake the test.** If no valid excuse is produced, you will receive a grade of zero for that test/quiz.

Instructional Method: Class time will be used for instructor demonstration, class discussion, and student practice. Homework assignments will be given for student practice. Practice is essential to success in this course. Questions regarding class material and assignments can be addressed in class or during office hours.

Grading Procedures:

Abbreviation and Conversion Quiz: 8% - Based on the abbreviations found on pg 126-127

Units 1 and 2 Quiz: 8%

Unit 3 Quiz: 8%

Midterm: 25% - Based on Chapters 1 – 16 of text and class discussion/materials.

Unit 4 Quiz: 8%

Project: 5% - description will be given in class

Unit 5 Quiz: 8%

Final: 25% - Based on Chapters 1-25 of text and class discussion/materials.

Assignments: 5% - Unit reviews will be checked throughout the semester. Work must be clearly labeled and legible for full credit to be awarded. **All assignments are due at the beginning of class on the due date and will not be accepted otherwise without prior notification and documentation of a legitimate excuse.**

A	93-100	C+	77-79		
A-	90-92	C	73-76		
B+	87-89	C-	72-70		
B	83-86	D+	67-69		
B-	80-82	D	60-66	F	0-59

Class Cancellations: College wide class cancellations are announced on the regular media and on the college inclement weather hotline. In a rare event that I need to cancel an individual class, every effort will be made to notify students via email of the class cancellation. When a class is cancelled, the following will occur:

- If a class is cancelled on the day of a test, the test will be given at the next class.
- If a class is cancelled on the day an assignment is due, the assignment will be collected at the next class.

Students with Disabilities: Students with documented disabilities who may be in need of academic accommodations should discuss these needs with me during the first week of class.

This syllabus is subject to change. Notice will be given to any changes during the semester.

<i>Date</i>	<i>Section/Topic</i>
R Jan 21	Syllabus, Pre-Test, Chapter 1 Roman Numerals Chapter 2 Fractions, Chapter 3 Decimals Assignment: Practice Problems: Ch 1 all, Ch 2 odds, Ch 3 odds
R Jan 28	Chapter 4 Ratio and Proportion, Chapter 5 Percents Chapter 6 Metric System, Assignment: Practice Problems: Ch 4,5,6 all Unit 1 Review: (Due Feb 11th) Chapter 1 Review: pg 6 #1-15 odd Chapter 2 Review: pg 18 #3,5,13,15,21,23,27,30,36,38,47,49,59,63 Chapter 3 Review: pg 34 #1,3,7,9,11,15,17,19,21,25,29,33,37,45,49,53 Chapter 4 Review: pg 43 #12,14,22,23,24,29,33,37,39 Chapter 5 Review: pg53 #3,9,12,16,21,25,29
R Feb 4	Abbreviations Quiz Chapter 7 Apothecary and Household System, Chapter 8 Conversions, Chapter 9 Additional Conversions Assignment: Practice Problems: Ch 7 all, Ch 8 odds, Ch 9 odds Unit 2 Review: (Due Feb 11th) Chapter 6 Review: pg 67 #17-45 odd, 56, 58 Chapter 7 Review: pg 76 #9-21 odd Chapter 8 Review: pg 91 #9-33 odd, 50, 61, 66 Chapter 9 Review: pg 104 #3, 8, 25, 34, 37, 43, 47, 51, 54, 56, 58, 61, 65, 68
R Feb11	Unit 1,2 Quiz, Unit 1,2 Reviews Due Chapter 10 Medication Administration Chapter 11 Understanding Medication Orders Chapter 12 Medication Administration Records Chapter 13 Reading Medication Labels Assignment: Practice Problems and read chapters: Ch 10-13 all
R Feb 18	Chapter 14 Dosage Calculations: Ratio and Proportion Chapter 15 Dosage Calculations: Formula Methods Chapter 16 Dosage Calculations: Dimensional Analysis Assignment: Practice Problems: Ch 14 #7-25 odd, Ch 15 odds, Ch 16 odds Unit 3 Review: (Due Feb 25th) Chapter 10 Review: pg 122 #1, 3, 4, 5, 12, 13, 14 Chapter 11 Review: pg.139 #34, 38, 41, 51, 57, 59, 60, 65 Chapter 12 Review: pg 156 Exercise 1+2, use chart in book (tear out or copy) Chapter 13 Review: pg 176 #1-10(if writing on regular paper, follow order/setup) Chapter 14 Review: pg 196 #9, 11, 13, 14, 47, 51, 53 Chapter 15 Review: pg 224 #9, 11, 13, 14, 47, 51, 53 Chapter 16 Review: pg 248 #9, 11, 13, 14, 22, 25, 27, 32
R Feb 25	Unit 3 Quiz, Unit 3 Review Due Practice Midterm (Chapters 1-16), Midterm Review

R Mar 4	<p>Midterm Exam</p> <p>Chapter 17 Calculation of Oral Medications Chapter 18 Parenteral Medications Assignment: Practice Problems: Ch 17+18 every other odd</p>
R Mar 11	No Class- Spring Break!
R Mar 18	<p>Chapter 19 Reconstitution of Solutions Chapter 20 Insulin Assignment: Practice Problems Ch 19 every other odd, Ch 20 odds</p> <p>Unit 4 Review: (Due Mar 25th) Chapter 17 Review: pg 293 # 5, 10, 25, 35, 50 Chapter 18 Review: You will receive a handout for this chapter to complete. Chapter 19 Review: pg 389 #5, 10, 25, 35, 37, 38 (Do not shade syringes) Chapter 20 Review: You will receive a handout for this chapter to complete.</p>
R Mar 25	<p>Unit 4 Quiz, Unit 4 Review Due</p> <p>Chapter 21 IV Solutions, Equipment Chapter 22 IV Calculations Assignment: Practice Problems Ch 21 all, Ch 22 every other odd</p>
R Apr 1	<p>Chapter 23 Heparin Chapter 24 Critical Care Assignment: Practice Problems Ch 23+24 all</p>
R Apr 8	<p>Chapter 25 Pediatric and Adult Dosage Calculations Based on Weight Project Description Assignment: Practice Problems Ch 25 every other odd</p>
R Apr 15	<p>Bring project data to class Additional Unit 5 Examples</p> <p>Unit 5 Review: (Due on Apr 22) Chapter 21 Review: pg. 450 #1-10 Chapter 22 Review: pg. 496 #5, 10, 20, 30, 45, 50, 55, 70, 82 Chapter 23 Review: pg. 514 #5, 10, 20, 30, 45, 50 Chapter 24 Review: pg. 531 #5, 10, 20, 30, 35, 40 Chapter 25 Review: pg. 575 #5, 10, 15, 20, 25, 35, 45, 65, 75</p>
R Apr 22	Unit 5 Quiz, Unit 5 Review Due
R Apr 29	<p>Project Due Practice Final Exam Comprehensive Post Test</p>
TBA	Final Exam