

Cedar Crest College

Mathematics for Health Care Professionals – Math 107

3 Credits

Fall 2008

Instructor: Melissa Ulicny

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Ext. 6467

610-504-5979, cell phone (between 9 am and 7 pm)

Text: *Calculate with Confidence* – 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. Please drop in at my office hours listed below in the adjunct office located at Curtis Hall Room 204.

Saturday: 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 from a classmate. You will be allowed one UNEXCUSED absence per semester. More than one unexcused 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.

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. Question regarding class material and assignments can be addressed in class or during office hours.

Grading Procedures:

Abbreviation and Conversion Quiz: 5% - Based on the abbreviations found on pg 128, 129

Units 1 and 2 Quiz: 5%

Unit 3 Quiz: 5%

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

Unit 4 Quiz: 5%

Project: 5% - description will be given in class

Unit 5 Quiz: 5%

Final: 40% - Based on Chapters 1-24 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 in 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>
Sat Aug 30	<p>Syllabus, Pre-Test, Chapter 1 Roman Numerals, Chapter 2 Fractions, Chapter 3 Decimals</p> <p>Assignment: Practice Problems</p>
Sat Sept 6	<p>Abbreviations Quiz</p> <p>Chapter 4 Ratio and Proportion, Chapter 5 Percents</p> <p>Assignment: Practice Problems</p> <p>Unit One Review: (Due Sept 13) Chapter 1 Review: pg 9 #1-15 odd Chapter 2 Review: pg 21 #1-3, 11-13, 22, 29, 36, 37, 46, 47, 57-65 odd Chapter 3 Review: pg 35 #1, 7, 8, 12, 13, 17, 19, 21, 25, 26,29,31,37,41, 46,48,49 Chapter 4 Review: pg 45 #2, 8, 12, 13, 20, 24, 28, 29, 36, 39 Chapter 5 Review: pg 54 #2, 4, 11-29 odd</p>
Sat Sept 13	<p>Chapter 6 Metric System, Chapter 7 Apothecary and Household System, Chapter 8 Conversions, Chapter 9 Additional Conversions</p> <p>Assignment: Practice Problems</p> <p>Unit Two Review: (Due Sept 20) Chapter 6 Review: pg 69 #1-35 Chapter 7 Review: pg 79 #1-22 Chapter 8 Review: pg 95 #1-70 odd Chapter 9 Review: pg 106 #1-9 odd, 25-31 odd, 37, 41, 46-52</p>
Sat Sept 20	<p>Unit One and Two Quiz</p> <p>Chapter 10 Medication Administration Chapter 11 Understanding Medication Orders Chapter 12 Medication Administration Records Chapter 13 Reading Medication Labels</p> <p>Assignment: Practice Problems and read chapter (all chapters)</p>

Sat Sept 27	<p>Chapter 14 Dosage Calculations: Ratio and Proportion Chapter 15 Dosage Calculations: Formula Methods Chapter 16 Dosage Calculations: Dimensional Analysis</p> <p>Assignment: Chapter 14 Practice Problems #3-39 odd Chapter 15 Practice Problems odds, Chapter 16 Practice Problems #1-5, 11-19 odd</p> <p>Unit Three Review: (Due Oct 4) Chapter 10 Review: pg 124 #1-15 Chapter 11 Review: pg. 136 #1-7, 9-67 odd Chapter 12 Review: pg 155 #1-15, Exercise 2 Chapter 13 Review: pg 175 #7-39 odd Chapter 14 Review: pg 194 #15-67 odd Chapter 15 Review: pg 220 #11-55 odd Chapter 16 Review: pg 241 #1-4, 15-20, 29-32</p>
Sat Oct 4	<p>Unit Three Quiz Practice Midterm (Chapters 1-16), Midterm Review</p>
Sat Oct 11	<p>Midterm Exam</p>
Sat Oct 18	<p>Chapter 17 Calculation of Oral Medications Chapter 18 Parenteral Medications</p> <p>Assignment: Chapter 17 Practice Problems #1-25 odd, 45-53 odd, 54 Chapter 18 Practice Problems #1-22</p>
Sat Oct 25	<p>Chapter 19 Reconstitution of Solutions Chapter 20 Insulin, Project Description</p> <p>Assignment: Practice Problems</p>
Sat Nov 1	<p>No Class</p>

Sat Nov 8	<p>Chapter 21 Pediatric and Adult Dosage Calculation Based on Weight Work on project (bring data to class)</p> <p>Assignment: Practice Problems</p> <p>Unit Four Review: (Due Nov 15) Chapter 17 Review pg 285 #7-47 odd Chapter 18 Review pg 335 #11-43 odd Chapter 19 Review pg 375 #9-39 odd Chapter 20 Review pg #1-39 odd Chapter 21 Review pg 447 #7-69 odd</p>
Sat Nov 15	<p>Unit Four Quiz Project Due</p> <p>Chapter 22 IV Calculations, Solutions and Equipment Chapter 23 Heparin Labels</p> <p>Assignment: Finish Practice Problems</p>
Sat Nov 22	<p>Chapter 24 Critical Care Calculations</p> <p>Assignment: Finish Practice Problems</p> <p>Unit Five Review: (Due on Dec 6) Chapter 22 Review: pg.525 #1-93 odd Chapter 23 Review: pg.543 #1-49 odd Chapter 24 Review: pg.561 #1-43 odd</p>
Sat Nov 29	No Class- Thanksgiving Holiday
Sat Dec 6	<p>Unit Five Quiz Practice Final Exam Comprehensive Post Test</p>
TBA	Final Exam