Cedar Crest College

Mathematics for Health Care Professionals – Math 107
3 Credits
Fall 2009

Instructor: Melissa Ulicny
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610-504-5979, cell phone (between 9 am and 6 pm)
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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.
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.

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.

Date	Section/Topic
R Aug 27	Syllabus, Pre-Test, Chapter 1 Roman Numerals Chapter 2 Fractions, Chapter 3 Decimals **Assignment:** Practice Problems (Everyone must complete assignment)
R Sept 3	Chapter 4 Ratio and Proportion, Chapter 5 Percents Chapter 6 Metric System, **Assignment:** Practice Problems **Unit One Review: (Due Sept 17)** 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
R Sept 10	**Abbreviations Quiz** Chapter 7 Apothecary and Household System, Chapter 8 Conversions, Chapter 9 Additional Conversions **Assignment:** Practice Problems **Unit Two Review: (Due Sept 17)** 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
R Sept 17	**Unit One and Two Quiz** 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

R Sept 24	Chapter 14 Dosage Calculations: Ratio and Proportion Chapter 15 Dosage Calculations: Formula Methods Chapter 16 Dosage Calculations: Dimensional Analysis **Assignment:** Chapter 14 Practice Problems #3-39 odd Chapter 15 Practice Problems odds, Chapter 16 Practice Problems #1-5, 11-19 odd **Unit Three Review: (Due Oct 1)** 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
R Oct 1	**Unit Three Quiz** Practice Midterm (Chapters 1-16), Midterm Review
R Oct 8	**Midterm Exam** Chapter 17 Calculation of Oral Medications Chapter 18 Parenteral Medications **Assignment:** Chapter 17 Practice Problems #1-25 odd, 45-53 odd, 54 Chapter 18 Practice Problems #1-22
R Oct 15	Chapter 19 Reconstitution of Solutions Chapter 20 Insulin, **Project Description** **Assignment:** Practice Problems
R Oct 22	Chapter 21 Pediatric and Adult Dosage Calculation Based on Weight **Work on project (bring data to class)** **Assignment:** Practice Problems

R Oct 29	**Project Due** Chapter 22 IV Calculations, Solutions and Equipment **Unit Four Review: (Due Nov 5)** 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
R Nov 5	**Unit Four Quiz** Chapter 23 Heparin Labels **Assignment:** Practice Problems
R Nov 12	Chapter 24 Critical Care Calculations **Assignment:** Finish Practice Problems **Unit Five Review: (Due on Nov 19)** Chapter 22 Review: pg.525 #1-93 odd Chapter 23 Review: pg.543 #1-49 odd Chapter 24 Review: pg.561 #1-43 odd
R Nov 19	**Unit Five Quiz** Practice Final Exam Comprehensive Post Test
R Nov 26	**No Class – Thanksgiving Break**
R Dec 3	**Final Exam**