Cedar Crest College

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

Instructor: Melissa Ulicny
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Ext. 6467
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.
Tues and 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 two absences per semester. More than two absences 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
T Aug 25	Syllabus, Pre-Test, Chapter 1 Roman Numerals, **Assignment:** Practice Problems
R Aug 27	Optional Class: Chapter 2 Fractions, Chapter 3 Decimals **Assignment:** Practice Problems (Everyone must complete assignment)
T Sept 1	Chapter 4 Ratio and Proportion, Chapter 5 Percents **Assignment:** Practice Problems
R Sept 3	**Abbreviations Quiz** **Unit One Review: (Due Sept 15)** 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
T Sept 8	Chapter 6 Metric System, Chapter 7 Apothecary and Household System, **Assignment:** Practice Problems
R Sept 10	Chapter 8 Conversions, Chapter 9 Additional Conversions **Assignment:** Practice Problems **Unit Two Review: (Due Sept 15)** 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
T Sept 15	**Unit One and Two Quiz** Chapter 10 Medication Administration **Assignment:** Practice Problems and read chapter

R Sept 17	Chapter 11 Understanding Medication Orders Chapter 12 Medication Administration Records Chapter 13 Reading Medication Labels **Assignment:** Practice Problems and read chapter (all chapters)
T Sept 22	Chapter 14 Dosage Calculations: Ratio and Proportion Chapter 15 Dosage Calculations: Formula Methods **Assignment:** Chapter 14 Practice Problems #3-39 odd Chapter 15 Practice Problems odds,
R Sept 24	Finish Chapter 15 Dosage Calculations: Formula Methods Chapter 16 Dosage Calculations: Dimensional Analysis **Assignment:** Chapter 15 Practice Problems odds, Chapter 16 Practice Problems #1-5, 11-19 odd **Unit Three Review: (Due Sept 29)** 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
T Sept 29	**Unit Three Quiz**
R Oct 1	Practice Midterm (Chapters 1-16), Midterm Review
T Oct 6	**Midterm Exam**
R Oct 8	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
T Oct 13	No Class – Fall Break
R Oct 15	Chapter 19 Reconstitution of Solutions **Assignment:** Practice Problems

T Oct 20	Chapter 20 Insulin, **Project Description** **Assignment:** Practice Problems
R Oct 22	Chapter 21 Pediatric and Adult Dosage Calculation Based on Weight **Assignment:** Practice Problems
T Oct 27	**Work on project (bring data to class)**
R Oct 29	**Project Due** **Unit Four Review: (Due Nov 3)** 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
T Nov 3	**Unit Four Quiz** Chapter 22 IV Calculations, Solutions and Equipment **Assignment:** Finish Practice Problems
R Nov 5	Chapter 23 Heparin Labels **Assignment:** Practice Problems
T Nov 10	Finish Chapter 23 Heparin Labels Chapter 24 Critical Care Calculations **Assignment:** Practice Problems
R Nov 12	Finish Chapter 24 Critical Care Calculations **Assignment:** Finish Practice Problems
T Nov 17	**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**
T Nov 24	No Class
R Nov 26	**No Class – Thanksgiving Break**
T Dec 1	Practice Final Exam Comprehensive Post Test
R Dec 3	**Final Exam**