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PHAR 101.01: Pharmacy Calculations

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Pharmacy Calculations (PHAR 101-01) Fall 2013	
<i>Instructor:</i> Dr. Mary McHugh PharmD, RPh	<i>Class Dates and Location:</i> M,T,W GH9C (9:10-10:00) Fall Semester
<i>Contact Info:</i> Phone: 243-7813 Cell: 531-2420 Email: mary.mchugh@umontana.edu	<i>Office Hours:</i> Posted on office door and feel free to schedule ahead via phone, email. I will respond to all calls and emails within a 24 hr. period M-F .

Course Description:

Pharmacy Calculations: This course will prepare you for the calculations used in pharmacy practice. You will review various systems of weights and measures (metric, apothecary, household), conversions between these systems, ratio/proportions, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution, concentration, alligation, flow rates, international time, temperature measurements, and compounding formulas, and business math.

Relationship to program(s):

It is imperative that you, as a pharmacy technician, have solid math skills in order to perform the functions necessary for safe dosage preparation and dispensing. This course will prepare you with the necessary math skills to perform the functions required in dispensing of medications and preparing sterile products.

Text: Pharmacy Calculations 4th ed (Powers and Wakelin)
ISBN: 978-1-61731-074-4

Supplies: A simple calculator

Course Completion and Grading Criteria:

Class participation/completion Criteria:

- Complete all course assignments
- Thoughtful participation in discussions
- Grading for discussion is explained in grading for discussion rubric

The grading scale is as follows:

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

You must have a "B" or better final grade in all pharmacy classes in order to progress within the program.

Semester Schedule:

DATE	Week #	Calc (chapter s)	Topic	Assessments	Points
26-Aug-13	Week 1	1-9	Review of numeral systems, fractions, decimals, significant figures	in class-quizzes	10
2-Sep-13	Week 2	10-11	Ratios and proportions, percents as used in pharmacy practice	in class-quizzes	10
9-Sep-13	Week 3	12-15	Exponents, significant figures, conversions (apothecary, metric, household), and review temp conversions, density and specific gravity calculations	in class-quizzes	10
16-Sep-13	Week 4	16-18	Calculations for compounding, percent error, days supply, refills for short-filled prescriptions	in class-quizzes	10
23-Sep-13	Week 5	19-20	Calculations for billing, insurance pricing, copays,	in class-quizzes	10
30-Sep-13	Week 6	21-22	Cash register and usual and customary pricing	in class-quizzes	10
7-Oct-13	Week 7	23-24	Discounts, net and gross profits	in class-quizzes	10
14-Oct-13	Week 8	25-26	Inventory control, daily cash report	in class-quizzes	10
21-Oct-13	Week 9	27	Parenteral dosing using proportions	in class-quizzes	10
28-Oct-13	Week 10	28-29	Powdered drugs and percentages	in class-quizzes	10
4-Nov-13	Week 11	30-31	Ratio solutions, dose calcs based on body weight	in class-quizzes	10
11-Nov-13	Week 12	32-33	Doses based on BSA, infusion and drip rates	in class-quizzes	10
18-Nov-13	Week 13	34-35	Dilutions and alligations-devote 2 hours to this topic	in class-quizzes	10
25-Nov-13	Week 14	36	TPN calculations	in class-quizzes	10
2-Dec-13	Week 15	review	Review		0
9-Dec-13	Finals		Combine Finals? Monday-Dec 9 from 8-10		60
	Total Points				200

University Academic Calendar:

(<http://www.umt.edu/provost/about/academiccalendar.aspx>)

Monday, August 26		Autumn Semester Classes Begin
Monday, September 2		Labor Day – No Classes, Offices Closed
Monday, November 11		Veterans Day – No Classes, Offices Closed
Wednesday, November 27		Student Travel Day – No Classes

Thursday-Friday, November 28-29		Thanksgiving – No Classes, Offices Closed
Friday, December 6		Last Day of Regular Classes
Monday-Friday, December 9-13		Final Exams

Course Policies and Other Information:

1. Assignment Due Dates/Times

Late work will receive a 20% reduction in points for each day it is late.

2. Naming & Submitting Assignments

Assignments may be saved in either of these file formats: RTF, .doc or PDF. Please name your files with your last name and an abbreviated name of the assignment, like this: mchugh_antibiotics1. You can use an underscore (_) or a period (.) to separate your name from the name of the assign. Do not use other symbols (such as: # \$ @ * & - ? , etc.) in your file names as I won't be able to open the file.

3. ACADEMIC INTEGRITY:

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by The University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://life.umt.edu/vpsa/student_conduct.php.

4. DISABILITY ACCOMODATION:

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). "Reasonable" means the University permits no fundamental alterations of academic standards or retroactive modifications. Therefore, Eligible students with disabilities must request appropriate accommodations in this course in a timely way. Please speak with me after class or in my office. Please be prepared to provide a letter from your DSS Coordinator. For more information, visit the Disabilities Services website at <http://www.umt.edu/dss/> or call 406-243-2243 (voice/text)

Note: Instructor reserves the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances.

5. Technical Requirements

To participate in some courses at The University of Montana, students are expected to be familiar with computers and the Internet. Students are responsible for their own software and computer equipment maintenance and setup.

You may find hints for using Moodle, and other computer assistance at this website: [Online Technical Support](#).