



MA 71 – Introduction to Medical Assisting

Basic Course Information

Semester:	Fall 2022	Instructor Name:	J. Alicia Ortega, MSN, RN, FNP
Course Title & #:	NURS-100 Medication Mathematics	Email:	alicia.ortega@imperial.edu
CRN #:	10380	Webpage (optional):	
Classroom:	TBA	Office #:	TBA
Class Dates:	08/19/2022-10/07/2022	Office Hours:	TBA
Class Days:	Friday	Office Phone #:	TBA
Class Times:	08:00-10:05	Emergency Contact:	TBA
Units:	1	Class Format:	In person

Course Description

This course focuses on those components of safe medication calculation and administration. The emphasis is on accuracy of calculation and the critical thinking evolved in client safety. This is an intense class on med math calculations that are required of all nursing majors. Clinical application is integrated into the clinical nursing courses. (CSU)

Student Learning Outcomes

Upon completion of this class the student will be able to: Demonstrate understanding by passing a comprehensive final exam on dosage calculations at 78% or higher and overall grade for course of 78% or higher. (ILO2, ILO4) (ILO2, ILO4)

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Calculate basic mathematic problems including addition, subtraction, multiplication & division of fractions & decimals.
2. Convert metric, apothecary and household measures accurately.
3. Solve dosage problems using dimensional analysis
4. Calculate adult & pediatric dosages
5. Calculate intravenous flow rates
6. Interpret drug orders and labels relevant to the safe administration of drugs,
7. Discuss the "Seven rights" of clients relative to administration of medications.
8. Describe the routes of administration, po, IM, IV



Textbooks & Other Resources or Links

Dosage Calc 360 4-year access. Sandra Luz Martinez de Castillo, Maryanne Werner-McCulloug. FA Davis 2019, ISBN 9780803677135

Course Requirements and Instructional Methods

During the 2022 Fall Session, NURS100 is offered in person.

Classroom work:

- Weekly modules and assignments open on Sunday 1200am and are due on Saturday @1159pm
- The student is expected to attend and participate in class.
- Tests: There will be exams covering the topics reviewed in the weekly modules. EXAMS will be taken in

Canvas using monitoring system HonorLock or classroom.

THERE ARE NO MAKE-UP EXAMS; if a need is identified please communicate with your professor as soon possible.

Assignments:

There will be homework assignments from the required Dosage Calc 360 (FA Davis) online site. These are part of your grade. These assignments will be outlined in Canvas. The assignment will cover the topics discussed in modules and on Dosage Calc 360.

A student shall treat this course like a job.

There will be:

- Homework: Chapter assignments in Dosage Calc 360 (points are assigned by the activity) overall percentage (100 points)
 - Weekly Activities (25-35 points each)
 - Weekly Exams (25-35 points each)

1 Final Exam (100 points)

Late work will be accepted with a 10% deduction per day, until Sunday of the following week. After Monday late work will not be accepted.

Taking EXAMS from Home with HONORLOCK

- **Honorlock** will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account or schedule an appointment in advance. Honorlock is available 24/7, and all that is required is a computer, a working webcam/microphone, your ID, and a stable internet connection.

To get started, you will need Google Chrome and download the Honorlock Chrome Extension (Links to an external site.).

When you are ready to complete your assessment, log into Canvas, go to your course, and click on your exam. Clicking

"Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session through your webcam, microphone, and recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact them through live chat on the support page ([Links to an external site.](#)) or within the exam itself. Some guides you should review are Honorlock MSRs ([Links to an external site.](#)), Student FAQ ([Links to an external site.](#)), Honorlock Knowledge Base ([Links to an external site.](#)), and How to Use Honorlock

Course Grading Based on Course Objectives

Course Grading Based on Course Objectives:

This is a nursing course therefore the grading is per the nursing department grading scales.

A = 93-100%

B = 84-92%

C = 78-83%

F = Below 78%

Course Policies

ATTENDANCE

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Special circumstances can be contemplated as long as you reach out to your professor with anticipation or as soon as the need is identified. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- If a student leaves the class early, or after the break without notifying the instructor, this will constitute an absent equal to the number of hours absent that day.
- Absences attributed to the representation of the college at officially approved events (conferences, contests,

and field trips) will be counted as 'excused' absences

ONLINE NETIQUETTE

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette:
 - a. identify yourself,
 - b. includes a subject line
 - c. avoid sarcasm
 - d. respect others' opinions and privacy
 - e. acknowledges and return messages promptly
 - f. copy with caution
 - g. does not spam or junk mail
 - h. be concise
 - i. use appropriate language
 - j. use appropriate emoticons (emotional icons) to help convey meaning
 - k. use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!).

CLASSROOM ETIQUETTE

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, including online class, unless otherwise directed by the instructor. Electronic watches that can access internet are not allowed in class during examinations.
- Food is prohibited in all classrooms/online classroom. Drinks and Water bottles with lids/caps are the only exception.
- Disruptive Students: Students who interfere or disrupt a class may be dismissed from class and meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed in the classroom, including online/zoom classes. Please keep background noise low or mute when attending online zoom classes.

ACADEMIC HONESTY

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual

property. There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to “cite a source” correctly, you must ask for help.

Other Course Information

CIVILITY

Civility is treating others and ourselves with respect, dignity and care. Civility is evident when we are sensitive to the impact that our communications, and behaviors have on others, and when we acknowledge each other’s self-worth and unique contributions to the community as a whole. Incivility includes any and all forms of disrespect, behavior misconduct or disregard for instruction, the instructor or a fellow student. Students are expected to adhere to the standards of Student Conduct and the regulations adopted by the college. behavior misconduct. Students will treat faculty and other students with respect. Students are expected to promote self-accountability for their actions and foster respectful and professional conduct in all academic interactions. Students should report any form of harassment, disrespect or threatening action. Violations are subject to student disciplinary actions, including but not limited to the removal, suspension or expulsion of a student. Education Code Section 76034, IVC Code of Student Conduct.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

- Disabled Student Programs and Services (DSP&S) office is in Building 2100, telephone 760-355-6313.
- Student Health Center. A Student Health Nurse is available on campus. Make appointment online or contact 760-355-6128.

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 August 19 Last Day to Drop Class with a W: August 28	OBJECTIVES: 1. Read & Understand the Syllabus 2. Complete the Getting Started module 3. Enroll and learn the Dosage Calc 360 online 4. Know more about your fellow online classmates	

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
	<p>Learn and understand the dimensional analysis method of dosage and drug calculations.</p> <p>ASSIGNMENTS:</p> <ol style="list-style-type: none"> 1. Purchase the textbook: 2. This is the e-book and online activities that you will be using. I have put the Instructions in the Modules on how to register 3. Read & Understand the Syllabus 4. Read & Understand the Getting Started Module and Course Policies 5. Read & Understand Week 1 Modules M1-M2. 6. 1st Week Attendance 7. Read and complete Assignments due on Canvas and Dosage Calculation 360 <p>- M1 Basic Math - M2 Safety in Medication Administration</p>	<p>Dosage Calc 360 Online</p> <p>CANVAS</p>
<p>Week 2 August 26</p>	<p>OBJECTIVES:</p> <ol style="list-style-type: none"> 1. List the commonly used units of measure in the metric system. 2. Express metric weights and volumes using correct notation rules. 3. Convert metric weights and volumes within the system. 4. Recognize dosages: <ul style="list-style-type: none"> -Measured in units. -Measured as percentages. -Using ratio strengths. o Measured in milliequivalents. -In household measures. -In the apothecary measures <p>ASSIGNMENTS:</p> <ol style="list-style-type: none"> 1. Review the study guide for Week 2 2. Review the PowerPoints for M3 and M6 Dimensional Analysis 3. Review and complete the Exercises on M3 and M6 4. Exam TBD 	
<p>Week 3 September 2</p>	<p>OBJECTIVES:</p> <ol style="list-style-type: none"> 1. Prepare solutions from powdered drugs using directions printed on vial labels. prepare solutions from powdered drugs using drug literature or inserts. 2. Determine the expiration date and time for reconstituted drugs. 3. Calculate dosages for reconstituted drugs, oral medications in solid and liquid form and medications measured in milliequivalents 	

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
	<p>4. Calculate dosages based on weight. 5. Calculate average parenteral</p> <p>ASSIGNMENTS:</p> <p>1. Read M10 Calculating Parenteral Medication Dosages, M11 Preparing Powdered Parenteral Medications, M12 Administering Insulin 2. Review power points in Week 2 3. Study Guides posted in Week 2 4. Complete Assignment Week 2 5. Complete Exam #2 and Discussion in Canvas 6. Review and complete the exercised in Dosage Calculation 360</p>	
<p>Week 4 September 9</p>	<p>OBJECTIVES:</p> <p>1. Differentiate between primary, secondary, peripheral, and central IV lines. 2. explain the function of IV drip chambers, roller and slide clamps, and on-line and indwelling injection ports. differentiate between volumetric pumps, syringe pumps, and PCAs. 3. identify the abbreviations used for IV fluid orders. 4. identify the calibrations in gtt/mL (drops/mL) on IV administration sets. 5. calculate flow rates using dimensional analysis. 6. flow rates to infuse ordered dosages. 7. heparin dosages. 8. mL/hr flow rates for an Electronic Infusion Device (EID) or IV pump.</p> <p>ASSIGNMENTS:</p> <p>1. Review the study guides and videos for the study guides for Week 3 IV's. 2. Review the PowerPoints for M13 Calculating for IV Medications and Infusions, M14 Administering Direct IV Medications, M16 Titration 3. Review and complete the Exercises in Dosage Calc 360 4. Complete the Week 4 exam and discussion on Canvas.</p>	<p>Dosage Calc 360 CANVAS</p>
<p>Week 5 September 16</p>	<p>OBJECTIVES:</p> <p>1. Explain how suspensions are measured and administered. 2. Calculate pediatric oral dosages. 3. List the precautions of IM and subcutaneous injection in infants and children. 4. Calculate pediatric IM and subcutaneous dosages. 5. List the steps in preparing and administering IV medications from a solution bag. 6. Explain why a flush is included in IV medication administration.</p>	

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
	<p>7. Calculate flow rates for the administration of pediatric IV medications.</p> <p>8. Use normal daily and hourly dosage ranges to calculate and assess dosages ordered.</p> <p>9. Dosages and flow rates based on kg body weight</p> <p>ASSIGNMENTS:</p> <p>1. Review the study guides and videos for the study guides for Week 4 peds and intake and output and conditions for special populations</p> <p>2. Review the PowerPoints for M15 Verifying Safe Dose, M17 Calculating Intake and Output, M18 Special Populations</p> <p>3. Review and complete the Exercises in Dosage Calc 360</p> <p>4. Complete the Week 5 exam and discussion on Canvas</p>	<p>Dosage Calc 360</p> <p>CANVAS</p>
<p>Week 6 September 23</p>	<p>Review for final exam</p>	<p>Dosage Calc 360</p> <p>CANVAS</p>
<p>Week 7 September 30</p>	<p>TBA</p>	<p>Dosage Calc 360</p> <p>CANVAS</p>
<p>Week 8 October 7</p>	<p>FINAL EXAM</p>	<p>Dosage Calc 360</p> <p>CANVAS</p>

*****Subject to change without prior notice*****