



PHRA 1309-101CL
Pharmaceutical Mathematics I
Fall 2021
Tuesday and Wednesday 10:15am-12:15pm

Instructor Information: Lisa Homburg, R. Ph., lhomburg@com.edu, 409-933-8685

Student hours and location: Monday-Thursday 1:00pm-3:00pm, or by appointment.
STEAM Building, Office 225-41

Required Textbook/Materials:

Pharmacy Calculations: An Introduction for Pharmacy Technicians 2nd Edition Author(s): Matthew Rewald, Bradley Lorang, and Garrett E. Schramm
ISBN: 978-1-58528-638-6

Pharmacy Labs for Technicians, 4th Edition, Paradigm Publishing, by Sparks, McCartney, Lubin, Barrera, ISBN# 9780763893644 (MUST HAVE ACCESS CODE)

Course Description: This course covers solving pharmaceutical calculation problems encountered in the preparation and distribution of drugs

Course requirements:

Required Skills

Students enrolled in this course should possess the following technology skills:

- The ability to use latest stable releases of Google Chrome, Mozilla Firefox, or Safari 10.X web browsers.
- The ability to access information via the Internet
- The ability to use Blackboard and associated tools, including discussion boards, chat rooms, online testing, and assignment submission features
- The ability to use Respondus LockDown Browser and Respondus Monitor (see section, “Using LockDown Browser and a Webcam for Online Exams” for more details)
- The ability to use any necessary publisher content (examples: Cengage, SIMnet, MindTap, MyMathLab, etc.)
- The ability to use word processing software, and to save in alternate formats
- The ability to send, receive and include attachments using email
- The ability to demonstrate netiquette (appropriate online conduct)

Software and Hardware

- Minimum recommended computer and internet configurations for online courses can be found here.
- Internet connection (DSL, LAN, or cable connection desirable)
- An up-to-date operating system from Microsoft or Apple - PC platforms should run Windows 7 or newer; Mac platforms should run OS 10.8 or newer (Chromebooks, tablets, and mobile devices are not compatible with all online course components)
- Access to Blackboard
- Latest stable release of JAVA
- 256 MB RAM
- 20 MB free disk space
- A microphone and headphones (A headset with microphone/headphones is highly recommended)
- Webcam
- Any other tools, resources, and materials needed by the student for the course.

The following software is required in order to view course content and to participate in planned course activities. If you do not have this software currently loaded on your computer or are unsure, you can download the software by clicking on the following links:

Respondus LockDown Browser and Monitor:

<https://download.respondus.com/lockdown/download.php?id=138331997>

(Note: Respondus Lockdown Browser and Monitor will not be available in College of the Mainland computer labs.)

Quizzes: There will be random quizzes in this course which will be taken using Respondus Lockdown Browser and Webcam. (Refer to [Using LockDown Browser and a Webcam for Online Exams](#) at the end of the syllabus)

Assignments: There will be assignments in each chapter reinforcing the math skills presented.

Labs: Accreditation standards require all pharmacy technician students to complete 50 hours of hands-on simulation prior to engaging in externship activities. There are 16 hours of lab exercises incorporated into this course in preparation for externships in the spring semester. Attendance at on campus labs is MANDATORY due to the difficulty in set-up. Unless prior arrangements have been made, a grade of "0" will be assessed for each on campus lab exercise missed. Study questions and dry lab exercises may still be turned in for credit at the instructor's discretion.

Exams: There will be two multiple choice exams and 1 final exam. These exams will be taken using Respondus Lockdown Browser and Webcam. (Refer to [Using LockDown Browser and a Webcam for Online Exams](#) at the end of the syllabus)

Mandatory Mid-Semester Meeting: All students are required to meet with the Pharmacy Technician Program Instructor at the mid-point of the semester. This meeting will be held virtually over Blackboard Collaborate or Microsoft Teams. This is an opportunity to discuss the student's standing in each course, identify regulatory requirements which must be met, develop a student academic plan, and complete mandatory paperwork. Students who fail to meet with the Instructor at the mid-point of the semester will not be allowed to enroll in the next semester's courses until the meeting has been completed.

Determination of Course Grade/Detailed Grading Formula:

Activity	Percentage Weight
Quizzes	15%
Assignments	10%
Labs	10%
Exams	30%
Final Exam	30%
Attendance and Participation	5%

Grading Scale:

Letter Grade	Numerical Point Value
A	90-100
B	80-89
C	70-79
D	65-69
F	64 and below

Late Work, Make-Up, and Extra-Credit Policy:

Tardiness Policy: Class will start at the stated time. Students who are 5 minutes late are considered tardy. Three tardies will constitute an absence and will affect the student's attendance/participation grade.

Late Work Policy: Late work will not be accepted.

Make-Up Policy: There is no make-up policy for this course. Students are expected to complete the course activities in a timely manner following the required due dates. **The student is responsible for obtaining all missed materials and is responsible for meeting all upcoming due dates for assignments, quizzes, and exams, even if the student was absent when the assignment was given.** There will be **no make-up exams** given in any Pharmacy Technician Program courses unless prior arrangements have been made with the instructor in response to extenuating circumstances. If a student misses one exam during the semester in any course, they may use their final exam grade in place of the missed exam grade. If any other exams are missed in any course, a grade of “0” will be given.

Attendance Policy: Students at COM are expected to attend and participate in every session of all courses for which they are registered. College of the Mainland recognizes no excused absences other than those prescribed by law.

The student will receive an attendance grade based on attendance and ACTIVE participation.

If absent, the student is responsible for contacting a classmate to obtain any assignments or materials. The student is responsible for all missed materials and upcoming quizzes/assignments on the assigned due date even if the assignment was given on the day the student was absent.

Accreditation standards require all pharmacy technician students to complete 50 hours of hands-on simulation/lab activities prior to engaging in their clinical externship. There are 50 hours of lab exercises incorporated into the fall semester. **Attendance in these lab exercises is MANDATORY.** These labs cannot be made up. Unless prior arrangements have been made with the instructor for extenuating circumstances, a grade of “0” will be given for any “wet” lab missed. Study questions and dry lab exercises may be turned in for partial credit at the instructor’s discretion. If a student fails to participate in 50 hours of hands-on simulation/lab activities, they will not be able to participate in the clinical externship course in the Spring semester.

The student is solely responsible for checking updates related to the course. As a component of attendance students should check their com.edu email, course announcements and discussion forums frequently (daily is recommended).

Note: nonattendance may affect financial aid. If a student fails to meet the attendance requirements, he or she may be recommended for withdrawal from the course. In the case of an anticipated absence, such as military deployment, the student should contact the instructor in advance and make arrangements to complete the required assignments. In case of an emergency (illness/accident or death in family), a student should contact the instructor as soon as possible providing documentation supporting the need for any late submission of a graded event.

Communicating with your instructor: ALL electronic communication with the instructor must be through your **COM email**. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

Student Learner Outcomes:

Core Objectives: Students successfully completing this course will demonstrate competency in the following Core Objectives:

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Solve basic math problems and demonstrate conversion between various systems of measurement including household, metric, and apothecary	Empirical and Quantitative Skills	Exam II
2. Perform adult and pediatric dosage calculations	Empirical and Quantitative Skills	Lab-Calculating Drug Doses

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty—such as cheating on exams, forging paperwork, or passing someone else’s work off as your own, is an extremely serious offense and will result in a grade of zero on that exam/assignment and a referral to the appropriate office for disciplinary action. It may result in failure of the course and expulsion from the program.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Kay Frieze, Department Chair at 409-933-8414, or kfrieze@com.edu.

PHRA 1309 Course outline:

Due Date	Activity
Aug 24	Lecture: Chapter 2 Numbers and Numerals Assignment: Roman Numerals, Quiz Sept 1
Aug 25	Lecture: Chapter 3 Review of Basic Math Operations
Aug 31	Lecture: Chapter 3 Review of Basic Math Operations Lab: (1 hour): Subdividing Dosage Forms-Splitting Tablets
Sept 1	Due: Quiz-Roman Numerals Lecture: Chapter 3-Review of Basic Math Operations Assignment: Converting Fractions>Decimals>Percent, Quiz Sept 8
Sept 7	Lecture: Chapter 3-Review of Basic Math Operations- Converting Fractions>Decimals>Percent Lab: (1 hour) : Lab 23: Reconstituting Powders
Sept 8	Lecture: Chapter 3-Review of Basic Math Operations Quiz-Chapter 3 —Converting Fractions>Decimals>Percent
Sept 14	Lecture: Chapter 3-Review of Basic Math Operations- Converting Fractions>Decimals>Percent Lab: (1 hour) : Chapter 2, Questions 12-20, Chapter 3 Question 25
Sept 15	Lecture: Chapter 12, pg 114.-Percentage of Error Lab: (1 hr): Percentage of Error Lab
Sept 21	Due: EXAM: Chapter 2 and 3
Sept 22	Lecture: Chapter 4-The Metric System--Conversions
Sept 28	Lab: (1 hour): Volume: Measuring Liquids
Sept 29	Chapter 4-The Metric System--Conversions Assignment: Metric Units, Quiz Oct 7
Oct 5	Lab: (1 hour): Weight: Measuring Powders and Cream/Ointments and Geometric Dilution
Oct 6	Lecture: Chapter 5-Apothecary and Household Measurements and Metric Conversion Due: Quiz Metric Conversions
Oct 12	Lab: (1 hour): Compounding Alprazolam Syrup (w/v)
Oct 13	Lecture: Chapter 5-Apothecary and Household Measurements and Metric Conversion, Quiz Oct 21
Oct 19	Lab: (1 hour): Compounding Benzocaine Cream (w/w)
Oct 20	Due: Quiz Household and Apothecary Conversions Lecture: Chapter 6-Measuring Time and Temperature Lecture: Chapter 7-Verifying DEA Numbers
Oct 26	Lab: (1 hour): Lab 3: Validating DEA Numbers
Oct 27	Due: EXAM Chapter 4,5,6,7
Nov 2	Lab: (1 hour): Measuring Active Ingredients

Due Date	Activity
Nov 3	Lecture: Chapter 8-Using Critical Thinking to Solve Problems
Nov 9	Lab: (1 hour): Reducing and Enlarging Recipes
Nov 10	Lecture: Chapter 9 Ratio and Proportions and How to Use Them
Nov 16	Lab: (1 hour) M&M Proportion Lab
Nov 17	Lecture: Chapter 9 Ratio and Proportions and How to Use Them
Nov 23	Lab: (1 hour): Applying Ratio and Proportion to Liquid Medication Doses
Nov 24	Lecture: Chapter 10- Calculating Drug Doses
Nov 30	Lab: (1 hour): Oral Liquid Calculations Using Medication Labels
Dec 1	Lecture: Chapter 10- Calculating Drug Doses
Dec 7	Lab: (1 hour) Calculating and Measuring Doses Based on Weight
Dec 8	Due: Final Exam

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook. <https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 16-week session is **November 19**.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the F_N grade is at the discretion of the instructor.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland’s Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.

Notice to Students Regarding Licensing: Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. The following website provides links to information about the licensing process and requirements: (<https://www.ptcb.org/get-certified/apply-for-cpht#.W34ziOhKjIU>, <https://www.pharmacy.texas.gov/> and https://www.pharmacy.texas.gov/files_pdf/Licensure%20QA.pdf).

Should you wish to request a review of the impact of criminal history on your potential Pharmacy Technician Certification and Texas State Board of Pharmacy Registration prior to or during your quest for a degree, you can visit this link and request a “Criminal History Evaluation”: (<https://www.ptcb.org/> and <https://www.pharmacy.texas.gov/>).

COM is providing this information to all persons who apply or enroll in the program, with notice of the requirements as described above, regardless of whether or not the person has been convicted of a criminal offense. Additionally, HB 1508 authorizes licensing agencies to require reimbursements when a student fails to receive the required notice.

Course Structure

This course will be delivered partially or fully online through the course management system Blackboard. You will use your COM account to log in to the course from the Blackboard login page - www.com.edu/blackboard. If you have not activated your COM account, please visit <https://webadvisor.com.edu>.

In Blackboard, you will access online lessons, course materials, and resources. At designated times throughout the semester, students will participate in a blend of self-paced and group-paced activities using Blackboard and/or alternative Internet-based technologies. Activities may consist of but not be limited to chat, blogs, discussion forums, email, journaling, blogging, wikis, and web posting.

To access this course on Blackboard you will need access to the Internet and a supported Web browser (Chrome, Firefox, Safari). To ensure that you are using the recommended personal computer configurations, please refer to the course requirements section in this syllabus.

Important Note: This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check their com.edu email and Blackboard for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.

Course Communication

The preferred method of contact is **com.edu E-mail**. You may reach me at lhomburg@com.edu. I will respond within 24 hours of receiving your email, Monday through Friday. Emails sent on Fridays may not receive a response until Monday. For weekends or evenings, you may use my personal email, lisahomburg@aol.com or text me at 832-677-1423 if you need an immediate response.

Viewing Grades in Blackboard: Students can view their grades by clicking on the **My Grades** link in the course menu in Blackboard.

Technical Assistance

For technical assistance during the course or to report a problem with Blackboard you can visit the Educational Technology Services support site: <http://de-support.com.edu/requests>
For technical assistance with campus Wi-Fi, COM user ID or password, and other campus related IT needs, visit: <https://helpdesk.com.edu/>

Online Etiquette (Netiquette)

Discussion, chat, and e-mail spaces within this course are for class purposes only, unless otherwise stated. Please remember to conduct yourself collegially and professionally. What you say in the online environment is documented and not easily erased or forgotten.

The following guidelines apply:

- Avoid using ALL CAPS, sarcasm, and language that could come across as strong or offensive.
- Use proper punctuation and grammar, and be sure to edit your contribution before posting.
- Read all posts before contributing your own to avoid unnecessarily repeating information.
- Keep chat comments brief and to the point.
- Focus on one topic at a time when chatting or posting to discussions.
- Remember that what you say in discussions and chats is documented and available to be revisited. Choose your words and discussion topics carefully.
- E-mail should only be used for messages pertaining to the course. Please refrain from sending forwards, jokes, etc.

Technology Outage

Students are responsible for maintaining their hardware, software, and Internet connection to the course. If you are incapable of maintaining your own system, please use the computers available on campus or take the CL section of the course. (NB, Access to college computers is limited by the hours of operation for the computer labs and library. You are responsible for staying abreast of these times.) No additional time will be provided for hardware, software, or Internet connection problems that interfere with your ability to access the course and complete your assignments and assessments. If a verifiable interruption in the access to the Course Management System that lasts for fifteen minutes or longer and occurs within twenty-four hours of an assignment or assessment, the deadline for the assignment or assessment may be extended at the discretion of your instructor.

Using LockDown Browser and a Webcam for Online Exams

This course requires the use of LockDown Browser and a webcam for online exams. Respondus Lockdown Browser and Monitor will not be made available on College of the Mainland computers. The webcam can be built into your computer or can plug in with a USB cable. Watch this [short video](#) to get a basic understanding of LockDown Browser and the webcam feature. A student [Quick Start Guide](#) is also available.

Then download and install LockDown Browser from this link:

<https://download.respondus.com/lockdown/download.php?id=138331997>

To ensure LockDown Browser and the webcam are set up properly, do the following:

- Start LockDown Browser, log into Blackbaord, and select this course.
- Locate and select the **Help Center** button on the LockDown Browser toolbar.
- Run the **Webcam Check** and, if necessary, resolve any issues.

- Run the **System & Network Check**. If a problem is indicated, see if a solution is provided in the Knowledge Base. Troubleshooting information can also be emailed to our institution's help desk.
- Exit the Help Center and locate the practice quiz named **Syllabus Quiz**.
- Upon completing and submitting the practice quiz, exit LockDown Browser.

When taking an online exam that requires LockDown Browser and a webcam, remember the following guidelines:

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Clear your desk of all external materials not permitted — books, papers, other devices
- Before starting the test, know how much time is available for it, and that you've allotted sufficient time to complete it
- Remain at your computer for the duration of the test
- If the computer or networking environment is different than what was used previously with the **Webcam Check** and **System & Network Check** in LockDown Browser, run the checks again prior to starting the test
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims
 - Ensure your computer or tablet is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed or other surface where the device (or you) are likely to move
 - If using a built-in webcam, avoid tilting the screen after the webcam setup is complete
 - Take the exam in a well-lit room and avoid backlighting, such as sitting with your back to a window
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted