Intravenous Admixture and Sterile Compounding
Coleman College

PHRA 1345 – Intravenous Admixture and Sterile Compounding
CRN 57584,62632,62633,62634 - Fall 2010
John P. McGovern Campus Suite: 3 - Room 3-07 | 1:30 pm - 3:30 pm | Wed
2 Hour Lecture, 4 Hour Lab Course (3 Credits) / 96 hours per semester/ 16 weeks

Instructor
Janet Pena, B.A., CPhT, PhTR                       Liz Johnson Wilroy, MAEd, B.S., CPhT, PhTR

Instructor Contact Information and Office Hours
Office:  Room 3-04.3  Office Phone:  713.718.7665       Email: janet.pena@hccs.edu
Office:  Room 3-02  Office Phone:  713.718.7352       Email: liz.wilroy@hccs.edu
Wednesday    7:00 am – 12:00 pm

Please feel free to contact me concerning any problems that you are experiencing in this course. You do not need to wait until you have received a poor grade before asking for my assistance. Your performance in my class is very important to me. I am available to hear your concerns and just to discuss course topics. Feel free to come by my office anytime during these hours.

LECTURE Days & Times Room: 3-07 Lab Room: 3-18
Wednesday  1:30 pm – 3:30 pm

Tuesday & Thursday  08:00 am – 10:00 am
10:15 am – 12:15 pm
1:00 pm  –  3:00 pm

** All students are required to attend an assigned lab on Tuesday AND on Thursday. Students are assigned a specific lab time and must adhere to their scheduled lab times.

Final Exam (LECTURE) Final Exam (Lab)
Wednesday: December 15, 2010  1:30 pm – 3:30 pm
December 7 & 9, 2010

Course Description

Course Level: Introductory

PHRA 1345 Intravenous Admixture and Sterile Compounding. A study of sterile products, legal and regulatory guidelines, hand washing techniques, pharmaceutical calculations, references, safety
techniques, aseptic techniques in parenteral compounding, proper use of equipment, preparation of sterile products, and safe handling of antineoplastic drugs. 3 credit (2 lecture, 4 lab).

### Course Prerequisite(s)

Admission to the Pharmacy Technician Program

### Course Goal

Students will accurately perform calculations required for usual dosage determinations and solutions preparation; demonstrate proper use of equipment & technology used in compounding sterile preparations; identify and describe the relationship of microorganisms, infection cycle, sterilization, particulate matter, and other sources of contamination; aseptically prepare powdered vials, ampules, liquid vials, IVPB’s, LVP’s, TPN’s, and chemotherapeutic solutions; identify and describe the use and function of various IV fluids, nutritional solutions, and additives; explain the major concepts of USP 797 as it affects the pharmacy technician and demonstrate the ability to apply basic mathematical concepts and operations to simulated situations which will be encountered beyond the College in “REAL WORLD” Pharmacy Settings.

### Student Learning Outcomes and Learning Objectives

1. Employ pharmaceutical/medical terms, abbreviations, and symbols commonly used in sterile product compounding
   1.1 Memorize and recall common medical and pharmaceutical vocabulary, abbreviation and symbols used in sterile product compounding.
   1.2 Accurately transcribe & translate sterile product medication orders and labels.

2. Demonstrate procedures and techniques relating to aseptic compounding and parenteral admixture operations
   2.1 Articulate and demonstrate the proper procedures for handwashing, environmental control cleaning and garbing required in the preparation of sterile products using correct aseptic technique.
   2.2 Manipulate needles, syringes, vials, ampules and other required sterile supplies correctly during sterile compounding following correct aseptic procedures.
   2.3 Prepare sterile IVPB, SVP, LVP, TPN, syringes, and chemotherapy products following USP 797 sterile compounding guidelines.

3. Perform the calculations required for the usual dosage determinations of solution preparations
   3.1 Calculate the correct quantity and volume of medication needed to compound various sterile products.
   3.2 Calculate the powder volume, diluent volume and/or total volume of a reconstituted medication vial.
   3.3 Calculate the infusion rate and frequency of various I.V. solutions.

4. Demonstrate proper use of equipment & technology used in compounding sterile preparations.

5. Identify and describe the relationship of microorganisms, infection cycle, sterilization, particulate matter, and other sources of contamination

### Scans or Core Curriculum Statement and Other Standards

The Pharmacy Technician Program is designed to prepare students for employment in most pharmacy settings, ranging from community and hospital pharmacy to home health pharmacy. The Student will demonstrate professional behavior and communication in the Pharmacy Technician Program.
SCANS

The following SCANS (Secretary’s Commission on the Achievement of Necessary Skills) areas of competency will be utilized in this course:

C4. Allocates Human Resources
C15. Understands Systems
C16. Monitor & Corrects System Performance
C18. Apply Technology to Tasks
C20. Maintain/troubleshoot Technologies

Course Calendar Fall 2010

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<th>WEDNESDAY</th>
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*Reading:* Students are to complete reading before class on the day the reading assignment is due.

*Worksheet:* Students should read, print, and bring the worksheet with them to class on the date due. Students are NOT required to complete the handout before class.

*Handout:* Students should read handout before the due date. It is beneficial for the student to print the handout and bring to class.

*Homework:* Indicates assignments that are due at the beginning of the class period. Assignments must follow the guidelines posted in the syllabus and include student name, class number and date due are required on all submitted assignments.

*Additional readings, assignments, skills, etc. may be assigned and schedule changes may be made at the instructor’s discretion.*

If your professor experiences an Internet service outage or a power outage that significantly affects the timing of distributing on-line assignments, or in any way appreciably hinders the professor in communicating with students, adjustments to due dates and/or grades will be made appropriately. If there is any official notification from HCC concerning downtime of the Blackboard (LMS) Internet course server that would affect distributing assignments, or in any way appreciably hinders the professor in communicating with students, adjustments to due dates and/or grades will be made appropriately.

This policy pertains only to the professor’s INTERNET SERVICE or to HCCS’s internet course servers, not the students’ computers or internet access. No one at Coleman College can monitor or verify outages at student sites and student access is not the responsibility of HCC. Students are responsible for making sure that they have continuous, reliable internet access in order to complete this course. It is YOUR responsibility to make sure that your instructor has received any and all assignments that have been submitted online.

**Instructional Methods**

PHRA 1345 is a required course for all Pharmacy Technician students.

As an instructor, I want my students to be successful. I feel that it is my responsibility to provide you with knowledge concerning the field of Pharmacy, modeling good strategies in solving Pharmaceutical math problems, and monitoring the field experience that allows you to connect the information that you learn in this course to the real world of Pharmacy.

As a student wanting to learn about the field of education, it is your responsibility to read the textbook, submit assignments on the due dates, study for the exams, participate in classroom activities, attend class, and enjoy yourself while experiencing the real world of Pharmacy.

**Student Assignments**

- Assignments have been developed that will enhance your learning. To better understand a topic, you will be given assignments on key information that you will need to remember for your success in your career as an educator. Please check the course calendar for specific assignment

- The lecture exam/test/quiz/assignment format will consist of short answer and/or essay, multiple choice, and/or T/F type questions. The final examination will be comprehensive over all materials covered in the textbooks/ assignments/lecture plus all skills demonstrated in lab. Assignments, quizzes, exams and tests may be either paper format or computer based.
Any assignment and/or lecture exam that is computer based will be administered and submitted for grading using Blackboard (LMS). Students will only be allowed access to Blackboard or other Learning Management System (LMS) in order to take their exams if they are physically present at Coleman College on the scheduled day and times as indicated on the class assignment schedule. In addition, students will need their unique assigned login I.D. and password to log on to Blackboard (LMS) to complete assignments and exams. Any student, who does not have their I.D. and password to log-on to Blackboard (LMS) to take an exam, will not be allowed to take the exam and will receive a grade of zero.

All quizzes, exams and the course final exam must be taken at the schedule time and scheduled day. You must complete the quiz, exams and the final exam within the class time allocated for the assessment. Students who arrive late will not have additional time in which to complete. If you arrive after any student has completed the quiz, exam or the final exam and left the room, you WILL NOT be allowed to take the quiz, exam or final exam and will be given a grade of zero “0”.

The only exceptions to the above policy are hospitalization or a physician’s statement prohibiting the student from taking the final exam. If a student misses the final exam due to an exception, the make-up for the final exam exception will be at the discretion of the instructor and must be taken within thirty (30) days after the end of the semester. Not being properly prepared will not be considered an exception.

Students are expected complete all reading assignments before the beginning of the class period in which the reading is due. Additional readings/homework not listed on the course schedule may also be assigned.

Students are required to complete and turn in all homework assigned by the instructor. Students will be given homework/participation points for completing and turning in the assignments. Most assignments will have a key posted on Blackboard (LMS) after the assignment due date has closed. It is the student’s responsibility to check their returned homework/assignments against the posted key to determine if they had completed the assignment correctly and have mastered the content.

For assignments submitted in person, the assignments are due at the BEGINNING of the class period. For assignments submitted via blackboard, the assignments are due by the posted DUE DATE & TIME. Online assignments are not accepted if they are not submitted according to the specific posted assignment directions or in the format listed in the PHRA 1345 syllabus.

Students are required to adhere to the following guidelines for submitting assignments. Assignments not submitted as outlined in the syllabus or on the assignment schedule will receive a reduction in points.

All submitted assignments (in-person or via Blackboard (LMS) must adhere to the following guidelines:

1. **HEADING:** All homework must include a heading (upper right corner of paper) in the following format:
   
   LECTURE
2. Do NOT write out question & answer when answering multiple choice, T/F, or matching type questions. Only submit the question # and corresponding answer letter. Write out a response if the question is a short answer type question requiring a 1 to 2 word answer. For example:

1. A  
2. B  
3. D

1. IVPB  
2. TPN  
3. IM

3. All homework submissions for essay questions & other writing assignments MUST be typed or computer generated. HANDWRITTEN essay/writing assignments WILL NOT be accepted. All other assignments (M/C, T/F, Matching) may be handwritten. If the assignment is derived from the course workbook, the corresponding pages may be submitted (i.e. answers do not have to be rewritten on separate paper).

4. All on-line assignments must be submitted via Blackboard (LMS) in a MS word or html file. DO NOT SUBMIT online assignments in any other format than MS word or html. The assignment file name should be in the following format: lastnamefirstinitial_assignmentname. For example, the file name for Bob Johnson’s IVadmixture assignment would be: johnsonb_IVadmixture

5. Any assignment that does not adhere to the above formatting guidelines will be subject to a deduction in points or a “zero” for the assignment.

- Students, who are absent, late, leave early, choose not to participate, work problems, turn-in assignments or who are not otherwise properly prepared for class will not receive participation credit for that particular Lecture/lab day.

**LATE ASSIGNMENTS WILL NOT BE ACCEPTED**

- The student will be expected to fully participate in and attend all lab periods. In addition, it is expected that the student **arrive to lab on time**, preferably **15 minutes** earlier to allow student time to prepare for skills practice as most instructional demonstrations occur within the first 10 minutes of the lab period.

- During the laboratory sessions, the student will be required to demonstrate proper aseptic technique in all areas covered as taught in this course. Students must pass (100% competent) all lab skills that pertain to sterile products training. Students must also demonstrate an overall competency in sterile products preparation.

- Students will be required to wear clean, pressed scrubs to each lab. Any student who fails to wear clean, pressed scrubs to any lab will not be allowed to participate and no makeup for the missed
lab will be provided. Note: The Pharmacy Technician Program does not provide scrubs.

- Students will be expected to perform lab skills in a quick, efficient, and effective manner for tests. Therefore, any student having difficulty in lab has the option of scheduling lab tutoring for extra practice.

- Students must attend their regular lab times in order to participate in lab tutoring. Lab tutoring is not a substitute for attending a scheduled lab period. Students who do not attend their scheduled lab period will not be allowed to request lab tutoring. Check with instructor to schedule lab tutoring.

NOTE: Lab tutoring will be scheduled outside of student’s regular lab periods.

### Student Assessments

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<th>Lecture</th>
<th>LAB</th>
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<tr>
<td>3 major exams ------------------------------- 45%</td>
<td>“Pass” or “Fail”</td>
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<td>Lecture Attendance/Participation------------------ 10%</td>
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<td>Lab Attendance/Participation--------------------- 10%</td>
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<td>Final Exam --------------------------------------- 20%</td>
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Please See Grading Criteria Column for Detailed Information on Calculation of Grades.

### Instructional Materials

**Required Textbooks & Supplies:**

- Pharmacy Education Resources National Intravenous Training Manual
  Author: Parks/Wilroy/Garcia
  Publisher: Pharmacy Education Resources, Inc.

- Pharmacy Laws & Regulations
  Lexis/Nexis/Texas State Board of Pharmacy (latest edition)

- Pharmacy Practice for Technicians 4th Edition
  Delmar Cengage

- Pharmaceutical Calculations for the Pharmacy
  Lippincott Williams & Wilkins

- Generic-Brand Comparison Handbook, Publisher: Mylan/UDL Laboratories

- SCANTRON #882-ES answer sheets for the Final Exam.

- **Basic non-programmable calculator** – no cell phones, PDAs, etc. allowed

- #2 lead pencil for SCANTRON form

- Clean pressed surgical scrubs (ceil) for lab participation
• Active HCCS e-mail address
• Students will be required to bring all required materials/supplies (calculators, handouts, homework, books, etc.) with them to all class periods. Students without the required materials/supplies may not be allowed to participate in that particular class period. Students will receive a “0” on any missed assignment/quiz/test and will not be allowed to make up the missed assignments/quiz/test due to not being properly prepared with the required materials/supplies.

**ADA Statement**

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at the beginning of each semester. Faculty are authorized to provide only the accommodations requested by the Disability Support Services Office. If you have any questions, please contact the disability counselor at Coleman College (1900 Pressler) Dr. Raj Gupta at 713-718-7631. See student handbook for further information or use the link:

http://coleman.hccs.edu/portal/site/coleman/menuitem.cd28cc331ea36ea9759b8e10507401ca/?vgnextoid=2274bfcaa921a110VgnVCM100000054710acRCRD&vgnextfmt=default

**Scholastic Dishonesty and Student Conduct**

- The HCC Student Handbook states: **“Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.”** Possible punishment may include a grade of 0 to F for the assignment, failure in the course, and/or recommendation for probation or dismissal from the Pharmacy Technician Program or Coleman College system.

- A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, the instructor has teaching, grading, and enforcement roles. You are expected to be familiar with the College's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. **“Scholastic dishonesty”**: includes, but is not limited to, cheating on a test, plagiarism, and collusion.

- **Cheating** on a test includes:
  1. Copying from another students’ test paper;
  2. Using materials not authorized by the person giving the test;
  3. Collaborating with another student during a test without authorization;
  4. Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test that has not been administered;
  5. Bribing another person to obtain a test that is to be administered.

- **Plagiarism** means the appropriation of another’s work and the unacknowledged incorporation of that work in one’s own written work offered for credit.

- **Collusion** means the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal.
from the College System. (See the Student Handbook)

- The HCC Student Handbook states: “...mature, responsible adults...Students will not interfere with or disrupt the orderly educational process of the college system.” Everyone is expected to display both courtesy and cooperation in the classroom. A student who either cannot or will not comply may be dismissed from the course.

- As your instructor and as a student in this class, it is our shared responsibility to develop and maintain a positive learning environment for everyone. Your instructor takes this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are asked to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

### Attendance / Withdrawal Policy

#### Lecture & Lab – Late Arrivals

If you are late to any lecture or lab exam/test/quiz (scheduled or unscheduled), the following applies:

- You must complete the exam/test/quiz within the class time allocated for the exam/test/quiz exam. You will not have additional time in which to complete the exam/test/quiz. For example, if an exam is schedule from 9 to 10 a.m., you must complete the exam by 10:00 a.m.
- If you arrive after any student has completed the exam/test/quiz and left the room, you **WILL NOT** be allowed to take the exam/test/quiz. If you are not allowed to take an exam/test/quiz, the absence policy will be used to determine the student’s grade on the particular assignment.

- Students will be expected to attend all class lectures, lab meetings, and field trips. Any student who is absent for more than 2 class periods (lecture or lab) will be subject to administrative withdrawal from the course, without notification. Further, any student more that 15 minutes late for class will be counted as absent. Each tardy (15 minutes or less) will add up and count towards total hours absent (2 tardies = 1 absence). All absences will result in a deduction from the student’s attendance/participation grade. Likewise, not staying for the entire class period or leaving early will also result in a deduction from the student’s attendance/participation grade. Leaving class 15 minutes or more before the scheduled ending time will count towards total hours absent (2 early departures = 1 absence).

- Poor attendance records tend to correlate with poor grades. If you miss any class, including the first week, **you are responsible for all material missed.** It is a good idea to find a friend or a buddy in class who would be willing to share class notes or discussion or be able to hand in paper if you unavoidably miss a class.

  **Class attendance equals class success.**

- All pharmacy technician students are required to call in to report any absences or tardies from lecture or lab. Students are required to call BEFORE the missed lecture or lab is scheduled to begin. For example: A student who is going to be absent from a 7:30 a.m. lecture must call & leave a message reporting the absence before 7:30 a.m. Students who fail to call in or call in after the missed lecture or lab was scheduled to begin will be subject to a reduction in their grade.

- Students will call **713.718.7665** to report any absences. In the message, clearly & slowly state student name, telephone number and the class in which the student will miss.

- If you feel that you cannot complete this course, you will need to withdraw from the course prior
to the final date of withdrawal. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than SIX total course withdrawals throughout their educational career in obtaining a certificate and/or degree.

- To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor may “alert” you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

- Students will receive early warning alerts from each instructor and/or the Pharmacy Dept. Chair for not following program guidelines listed in: 1) The Student Handbook, 2) Pharmacy Program Syllabi, or any 3) Pharmacy Technician Program Handouts. Students who receive 2 or more early warning alerts are subject to dismissal without warning from individual courses and labs. The Pharmacy program can choose to dismiss any student who does not abide by the early warning alert directions.

- If you plan on withdrawing from your class, you MUST contact a HCC counselor and your professor prior to withdrawing (dropping) the class for approval and this must be done PRIOR to the withdrawal deadline to receive a “W” on your transcript. **Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal deadlines. Remember to allow a 24-hour response time when communicating via email and/or telephone with a professor and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline. If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

- Repeat Course Fee:
The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC will charge a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

**Use of Camera and / or Recording Devices**

As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off your phone and other electronic devices, and will not use these devices in the classroom unless you receive permission from the instructor. Phones and other electronic devices are not allowed in the classroom without written permission from the Dept. Chair as per the Pharmacy Student Handbook.

Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students
with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations

**Instructor Requirements**

**As your Instructor, it is my responsibility to:**
1. Provide the grading scale and detailed grading formula explaining how student grades are to be derived.
2. Facilitate an effective learning environment through class activities, discussions, and lectures.
3. Description of any special projects or assignments.
4. Inform students of policies such as attendance, withdrawal, tardiness and make up.
5. Provide the course outline and class calendar which will include a description of any special projects or assignments.
6. Arrange to meet with individual students before and after class as required.

**To be successful in this class, it is the student’s responsibility to:**
1. Come to class regularly. You cannot learn if you are not present.
2. While in class, be PRESENT. It’s not enough just to be in the room. Consciously attend to what is going on. Take part in exercises and discussions.
3. Come to class prepared. The majority of what you learn takes place OUTSIDE OF CLASS. The information covered in class is only preparation for the learning you do in between sessions.
4. LISTEN! You were given two ears and one mouth. See how much you can learn from the ideas of others.
5. CONCENTRATE. Concentration is a SKILL. You are capable of doing it. You do it all the time. Find out what distracts you, and control it. Find out what helps you concentrate, and use it.
6. Develop INTERNAL MOTIVATION. Self-motivation is the key to success in any area of life. Studying and being present in class is no exception. The key to self motivation is finding how each subject applies to you and your own world. Only YOU can self-motivate!
7. ALWAYS COME TO CLASS PREPARED! Unprepared, you cannot take advantage of what is happening in class, or add to learning experience. TAKE NOTES!
8. Ask QUESTIONS. Questions are a major link to real learning. Ask questions in class to clarify your understanding. The only bad question is the one that goes unasked. Your brain does not like unanswered questions. If you really ASK, your brain will look for answers.

**Grading Scale**

The grading system for the Pharmacy Technician Program is different from that listed in the HCCS Student Handbook. It is very important that students understand that the Pharmacy Technician Program does not give out a passing grade below 70% "C" in lecture courses. Any score below 70% is considered and reported as an "F" for all lecture courses offered in the Pharmacy Program.

Your instructor will conduct quizzes, exams, and assessments that you can use to determine how successful you are at achieving the course learning outcomes (mastery of course content and skills) outlined in the syllabus. If you find you are not mastering the material and skills, you are encouraged to reflect on how you study and prepare for each class. Your instructor welcomes a dialogue on what you discover and may be able to assist you in finding resources on campus that will improve your performance.

**Grading System:**
A = 90 - 100%
B = 80 - 89%
C = 70 - 79%
F = 0 - 69%

**No D's will be given in this class**

All PHRA instructors utilize a web-based grade tracking system to record student grades. After a grade has been entered by the instructor, the student will receive an email stating that their grades have been updated. Students will have access to their grades at all times and are expected to regularly check grades for accuracy. Students should check their grades a minimum of 1 to 2 times per week. Any student with a grading discrepancy should contact the instructor as soon as the discrepancy is discovered. When meeting with the instructor, the student must bring the original graded assignment to the meeting. Student grades can be accessed at [www.mygradebook.com](http://www.mygradebook.com).

### Grading Criteria

PHRA 1345 is divided into two (2) separate sections – lecture and lab. The grade from each of these sections (lecture and lab) will be calculated separately. The lecture grade will be based on a traditional grading scale and the student must maintain a minimum average of 70% to pass the lecture portion. The lab is skills based and the student will be graded on a “pass” or “fail” basis. The final grade for the PHRA 1345 course will be the final grade received in lecture if all skills tests are passed in lab and student receives a “pass” in the lab portion. All other non-skills based lab grades (attendance/participation, quizzes, homework, etc) will be graded on a traditional grading scale and those grades will be factored into the student’s final course grade at a value of 10%.

Any student who does not maintain the minimum average in lecture (70%) or the minimum grade in lab (“pass”) will receive a failing grade for the entire course and will be required to take the entire course over, not just the failed section. (NOTE: All sterile products lab skills competencies must be completed with 100% accuracy to receive a “pass” grade for any skill)

### Final Grade Point Distribution:

<table>
<thead>
<tr>
<th>Lecture</th>
<th>LAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 major exams</td>
<td>“Pass” or “Fail”</td>
</tr>
<tr>
<td>Lecture Attendance/Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Lab Attendance/Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

Grading System:

<table>
<thead>
<tr>
<th>CLASSROOM</th>
<th>LAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 100 – 90%</td>
<td>“Pass” or “Fail”</td>
</tr>
<tr>
<td>B = 89 – 80%</td>
<td></td>
</tr>
<tr>
<td>C = 79 – 70%</td>
<td></td>
</tr>
<tr>
<td>F = 69 – 0%</td>
<td></td>
</tr>
</tbody>
</table>
**No D's will be given in this class**

No Extra Credit is offered in this class.

An on-line grade recording system is used in this course. Students **must have an active student e-mail address** in order to access their grades. Student assignment/quiz/test results are available on-line as soon as the instructor inputs the grades. Students are able to access assignments as well as total course grades at anytime. All PHRA students are expected to take responsibility in staying abreast of their grades, as students may not be given paper grade reports. Any student who feels any grade was incorrectly recorded must contact the instructor as soon as the student has identified the potential grading error.

**LAB GRADING:** The PHRA 1345 lab will consist of sterile product preparation. The student’s competency on sterile product labs will be determined by achieving 100% on lab skills tests.

Sterile products lab skill competencies will not be graded on a point system. Competency in sterile products preparation and aseptic technique is determined by the instructor’s evaluation of the student’s performance. Process validation checklists will be used as a tool in the evaluation of each student’s competency in specific aseptic techniques and sterile product preparations. These process validation checklists will be given to the student prior to evaluation. **The student will be required to pass each evaluation with 100% competency or the student will not receive a passing lab grade & must retake the entire course.**

The student will also be required to demonstrate an overall competency in aseptic technique and sterile product preparation. Final student lab evaluations will be a combination of the process validation checklist and overall competency in sterile products preparation.

*The student must realize that passing each process validation checklist and attending lab does not guarantee that the student will receive a passing grade.* Again, the student must demonstrate overall competency in preparing sterile products.

NOTE: Student’s competency will be determined by the instructor’s professional knowledge and evaluation.

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**Syllabi Addendum**

**Pharmacy Technician Program Learning Objectives**

1. Demonstrate appropriate entry level Pharmacy Technician didactic competencies necessary to pass the PTCB licensure exam.
2. Demonstrate appropriate entry level Pharmacy Technician mathematical skills required in pharmacy calculations for patient dosing.
3. Distinguish between and demonstrate approved clinical competencies in Retail, Home Care and Hospital rotations of the Pharmacy Technician program.
4. Operate pharmacy technology accurately, with consideration for accuracy, precision and care for necessary calibrations under the supervision of a pharmacist as required by the Pharmacy Technician program.
5. Display appropriate professional type Pharmacy behavior, dress and communications which takes into consideration cultural diversity while attending didactic courses, lab courses and clinical courses in the Pharmacy Technician program.
6. Define, distinguish, interpret and translate physician’s orders and prescriptions accurately to evaluate them for medication errors and pharmaceutical contraindications under the direct supervision of a pharmacist assuring patient safety is always the first priority.