

**PHM 183G - Basic Intravenous Admixtures PRE-LAB AND LAB
FALL 2016**

Unique # 59355, 59360, 59365, 59370, 59374, 59375

Pre-Lab:

Tuesdays 11:30 AM – 12:30 PM (Central) PHR 3.106

ITV to: UTHSCSA, UTRGV, UTEP

Labs:

Austin Tuesdays 1:30 – 4:30 PM, Wednesdays 1:00-4:00 PM PHR 3.108

El Paso Thursdays 12:30 – 3:30 PM (Mountain)

RGV Wednesdays 1:00 – 4:00 PM

San Antonio Wednesdays 1:00 – 4:00 PM

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***Lab schedule and topics can be found at the end of this syllabus**

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COURSE DESCRIPTION

Basic Intravenous Admixtures (PHM 183G) Pre-Lab/Laboratory describes the theory, preparation, use, and route of administration of sterile products and incorporates mathematical calculations, clinical applications, and drug information skills.

Course Prerequisites: PHR356C/PHM388M – Pharmaceutics and PHR156P/PHM188P – Pharmaceutics Lab

Course Co-requisites: credit or registration for PHR183F/PHM183F – Lecture for Basic IV Admixtures

Course Objectives:

- Practice garbing, handwashing, hood cleaning
- Practice IV manipulation skills; accurately calculate fluid volumes and flow rates
- Interpret and apply drug information
- Resolve issues related to medication orders
- Prepare medications for mock patients

Skills and Attitudes:

In addition to the course objectives, students will work on the following skills and attitudes that are necessary for a successful career in pharmacy:

- Attention to detail
- Time management in a high-stress environment
- Self-awareness and analysis
- Critical thinking
- Ability to learn from mistakes

CAPE Outcomes:

- 4.1.2 Maintain motivation, attention, and interest (e.g., habits of mind) during learning and work-related activities. Develop skills and attitudes necessary for life-long learning.
- 4.1.5 Approach tasks with a desire to learn.
- 4.1.6 Demonstrate persistence, flexibility, and resilience in all situations, including adapting to different practice environments; engage in help seeking behavior when appropriate.
- 4.1.7 Strive for accuracy and precision by displaying a willingness to recognize, correct, and learn from errors.
- 4.1.8 Use constructive coping strategies to manage stress.
- 4.4.1 Demonstrate altruism, integrity, trustworthiness, flexibility, and respect in all interactions.
- 4.4.2 Display preparation, initiative, and accountability consistent with a commitment to excellence.

How to be successful in lab:

- Be prepared for lab. Review previous lab work, read over Canvas materials, and prepare additive profile ahead of time when given the opportunity.
- Work in an efficient and timely manner. Do not rush through lab, which increases the risk of making careless mistakes. Work efficiently in order to not lose focus, stamina, or major points on paperwork for graded preparations.
- Accept that you will make mistakes. Be prepared to handle those moments professionally and learn from your mistakes.
- Check your work. Double check your additive profile and think through your processes before entering the hood.
- Take advantage of your resources. Communicate with your instructors and TAs. Let them know if you are struggling and need additional supervision.

COURSE REQUIREMENTS

Lecture Notes: Course materials will be posted in Canvas at least 24 hours before each lecture or pre-lab session. It is the student's responsibility to print out the notes if a hard copy is desired.

Optional reference:

Buchanan E. Clyde and Schneider Phillip J. *Compounding Sterile Preparations*, 3rd edition. Bethesda, Maryland; American Society of Health-System Pharmacists, 2009.
(Available in the LRC and from the UT libraries via STAT!Ref)

Grading Criteria:

Attendance	10% – attendance for lecture and pre-lab
Participation	10% – problem boxes and lab attendance/punctuality
Graded laboratory work	35% – a total of 2 IV preparations (17.5% each)
Media fill	10% – minus 1 point for each minute over 30
Final product	35% – <u>Must receive a 75 on this preparation to pass this course</u>
Total	100%

Grading Scale:

90% - 100%	= A
80% - 89%	= B
75% - 79%	= C
70% - 74%	= D
Below 70%	= F

NOTE: A passing grade of 75 is required on the final preparation. A student not passing the final preparation will receive an “F” in the course.

The media fill must be completed without contamination in order to pass the class. Students whose media fill is contaminated must repeat the media fill until they can do so without contamination. If necessary, a student will receive an “Incomplete” for the lab until the media fill is successfully completed.

POLICIES & RESOURCES

LABORATORY POLICIES AND PROCEDURES FOR PHR 183G:

Please read and examine the following course rules and information. It is extremely important that you understand these rules for the course.

1. Class (lecture and pre-lab) will start on time. Lab will start on time. Once lab starts, the lab door will remain locked until instruction is complete and until the first 30 minutes of lab have elapsed. The clock in the hallway outside of lab is used to designate the official lab starting time. Students who are tardy should remain in the hall outside of lab until the door is opened.

Do not knock on the door, as it will not be opened until instruction has been completed. Students entering after instruction will be responsible for catching up on what was missed **without** disrupting fellow classmates.

2. When you come to the laboratory sessions, you may either wear scrubs or dress business casual (no jeans/denim). You must wear closed toe shoes (no sandals, flip flops, etc.). Short sleeves are advised. And, you must wear your nametag until we begin dressing in our personal protective equipment (PPE). No jewelry from the elbows down to the fingertips (watches, bracelets, rings, etc.), no necklaces around the neck, and no jewelry from the neck up (ear rings and other facial piercings). If the jewelry can be seen prior to garbing in the lab, then it is not allowed in the lab. Once PPE is issued, it is the student's responsibility to bring it to each lab session. You will not be allowed to participate in lab if you do not meet dress code. Students on campuses other than Austin may have additional dress code requirements instituted locally by their campuses.
3. No daily laboratory work will be dropped. Grades will be assessed for a mid-term compounded sterile preparation (CSP), a media fill, a pre-final CSP, and the final CSP. In addition, problem boxes will be available during some lab periods. These boxes must be completed during the lab they are available. They will be graded and count toward the participation grade. All grades must be finalized PRIOR to the final preparation.
4. If a student cannot attend a laboratory, the student must notify the instructor before the laboratory meets. Students who know ahead of time they cannot attend a laboratory may ask the instructor's permission to change laboratory sections. Requests must be made in writing (paper or electronic) at least 24 hours prior to the start of the scheduled laboratory session. Notification must be made and acknowledged prior to the beginning of the scheduled laboratory session or the absence will be considered unexcused.
5. For approved absences from laboratory sessions, the student will be asked to make-up the missed laboratory. Students who miss lab must make up all missed activities prior to moving on to the next lab's materials.
6. Students with an unapproved absence for a laboratory session or final CSP will be given a zero for the grade of that session. If the missed lab session includes a graded preparation, the student will automatically move to the next attempt on the graded preparation scheduled for that session.
7. Students who score less than 75 points on the mid-term and pre-final CSPs can remake preparations without penalty one time. One additional remake can be done with 10 points deducted. In total, the student has three attempts to make a passing grade. First attempt, student begins at 100 points. Second attempt, student begins at 100 points. Third attempt, student begins at 90 points. If a student fails to make a 75 or higher on 1st or 2nd attempts, the student must proceed to the 2nd or 3rd attempt respectively. The grade on the third attempt stands, whether the student scores 75 points or not.
8. Daily lab work grades (mid-term CSP, problem boxes, and pre-final CSP) must be completed prior to the student being allowed to make the final CSP.

9. MSDS and chemical information about the drugs used in this laboratory may be found at the following UT homepage link: <https://www.lib.utexas.edu/chem/info/safety.html>
10. In the event of a needle stick or cut from an ampule that requires medical attention: During the school day, the Student Health Center on Main Campus is available for routine care for students who are injured or ill. Students on other campuses should visit their local Student Health Center.
11. Lab MAY begin earlier than the official start time. Coming in early is optional and is NOT available for all labs. In addition, labs MAY run longer than the official stop time. If the reason for the lab not ending on time is due to TA grading in the hood, then students will be allowed to complete their laboratory assignments until TA grading is completed. If the reason for lab not ending on time is due to the speed and efficiency of the student, then the student will be asked to stop working at the official end of lab. It is the expectation of faculty that ALL students will complete ALL assignments during the assigned laboratory time.
12. Final Compounded Sterile Preparation (CSP):
 - a. Students will sign up for a final preparation time.
 - b. Students should be outside of lab ready to go 15 minutes prior to their final start time.
 - c. Students who are unsuccessful on their first attempt should plan to complete the second attempt during the same lab time at the first available time.
 - d. Students who are unsuccessful on their second attempt will complete their third attempt during the next regularly scheduled lab time. The course coordinator will serve as a second grader on third attempts.
 - e. A student must receive a grade of 75 or higher on the final CSP.
 - f. A student not passing the final CSP will receive an F for the course.
 - g. The student has three attempts to pass the final CSP. The student will receive a 10 point deduction to his/her grade for each redo after the initial attempt (i.e., first attempt has no deduction, second attempt has a 10 point deduction, and third attempt has a 20 point deduction). These point deductions equate to one letter grade for each retest. Deductions will be taken after the preparation has been graded such that the student can pass the preparation with a score of greater than 75 yet receive a score of less than 75 in the gradebook. For example, a student fails the final CSP on his/her first attempt. On the second attempt, the student scores 83 points. The student has passed the final CSP because they scored higher than 75 points; however, the student will receive a grade of 73 in the grade book (83 minus 10 points for the retest) for the final CSP.

Attendance: It is your responsibility to attend pre-lab and lab and conduct yourself in a manner respectful to both faculty and fellow students. If you miss pre-lab or lab for any reason, you will be held responsible for all material covered and announcements made in your absence.

Attendance will be taken at the beginning of each lecture and pre-lab session via sign-in sheet, roll call, or Canvas quiz.

If you are absent from pre-lab, you are responsible for watching the pre-lab lecture PRIOR to attending your next scheduled lab. Pre-lab lectures will be recorded and videostreamed in Canvas. The lab coordinator may deny admission to any student who was absent from lecture and/or pre-lab who did not watch the recording prior to coming to lab.

Students who miss lab must make up all missed activities prior to moving on to the next lab's materials.

Permission to Miss Class for Attendance at Professional Meetings: It is the student's responsibility to ASK permission IN ADVANCE if he/she plans to attend a professional meeting, which would necessitate missing an exam, assignment, etc. It is at the discretion of the instructor as to whether to grant permission and allow the student to make up any missed work.

Religious Holy Days: By UT Austin policy, you must notify the instructor of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Cell/Smart Phones and Laptops:

- Cell phones should never be heard during class or lab. Out of respect to others in the class, including the instructor, silence phones or turn them off prior to the beginning of class and lab.
- Cell phones should not be used during class or lab. Sending or reading text messages during class or lab is unacceptable.
- Sending or reading emails during class or lab is unacceptable.
- Laptops may be used during class for taking notes.
- Using your laptop for activities other than taking notes causes a disruption to the classroom environment to those around you.
- Penalties for misuse are at the discretion of the instructor.

Course Website and Communications: Accessible only to students registered in the course via Canvas at <https://utexas.instructure.com>. UTEID and password are required. Canvas will contain copies of PowerPoint slide presentations, learning objectives, case studies, the course syllabus, and other course materials.

Messaging through Canvas is the official method for faculty to communicate with students in this course. Please keep your email address on UT DIRECT current at all times. Support for Canvas is provided by the ITS Help Desk. Please see <http://it.utexas.edu> for information regarding helpdesk availability and support options. See <https://utexas.instructure.com/courses/633028/pages/student-tutorials> for student tutorials related to Canvas.

Use of E-Mail for Official Correspondence to Students: E-mail is recognized as an official mode of university correspondence; therefore, you are responsible for reading your e-mail for university and course-related information and announcements. You are responsible to keep the university informed about changes to your e-mail address. You should check your e-mail

regularly and frequently—I recommend daily—to stay current with university-related communications, some of which may be time-critical. Link to update your email address in UTDIRECT: https://utdirect.utexas.edu/apps/utd/all_my_addresses.

Canvas Communications: Please make sure to set your Canvas settings such that you receive emails and announcement notifications in a timely manner. The student is responsible for accessing and reading any announcement that is posted in Canvas.

To edit your Canvas settings, click on “Account” on the left hand column of the screen. Then, select “Notifications”. You can select how often you receive notifications from the course via Canvas. I recommend setting Announcements, Conversations, et al to be sent to you right away so that you receive emails immediately. You can choose how often you want to receive notifications from Canvas – either right away, daily, weekly or never. Regardless of your personal settings, you are responsible for any course changes or communications that are posted in Canvas. In addition, if you click on “Settings” in the left hand column, you may link your settings to additional email accounts, Facebook, Twitter, etc.

Redistribution of Class Recordings: Our classroom is equipped with a lecture recording system. These recordings are made available by the University of Texas, and are intended solely for the purpose of review by students currently enrolled in this class. Students utilizing class recordings should be careful to not compromise the privacy of either themselves or other users (<http://registrar.utexas.edu/students/records/ferpa>). Any additional distribution of University- or student-generated recordings (regardless of format) is prohibited without the written and signed permission of the presenter and all students identifiable on the recording.

Please remember that this service is offered to supplement (not replace) lecture attendance. An issue might arise that could prevent material from being made available in a timely fashion or at all. Although every effort will be taken to keep the system running, UT does not guarantee the availability of these recordings. Attending class is the only way to insure your viewing of the professor's presentation.

University of Texas Honor Code: The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

College of Pharmacy Honor Code: Students are also expected to uphold the University of Texas at Austin College of Pharmacy Honor Code, which may be located for your review at <https://pharmacy.utexas.edu/students/programs-of-study/pharm-d-program/pharm-d-student-handbook/codes-of-conduct-and-professionalism/#honorcode>.

Scholastic Dishonesty: Students are expected to work independently on graded preparations, problem boxes, and math quizzes. Any student engaging in academic dishonesty will be given an appropriate penalty, including possible failure of the course. Any case of academic dishonesty will be reported to the Dean’s Office of the College of Pharmacy and to the University Dean of Students, as per University regulations.

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. Also, you should refer to the Student Judicial Services website at <http://deanofstudents.utexas.edu/sjs/> to assess the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty.

Common examples of scholastic dishonesty include, but are not limited to, the following:

1. Looking at and copying answers from another student's exam or quiz paper.
2. The use of crib notes or crib sheets.
3. Writing information for testing purposes on concealed paper, desks, skin, clothing or other material.
4. Stealing copies of the exam.
5. Changing answers after the exam period is completed.
6. Use of programmable calculators or computers for concealing information.
7. Talking to another student during an exam or quiz.
8. Any other act which gives a student an unfair advantage on an exam or quiz as compared with classmates.

NOTE: It is considered scholastic dishonesty to discuss a graded preparation with other students in your lab section or another lab section. Each graded preparation has an honor code clause that you will be asked to read and sign. Violation of this policy will result in a zero on the preparation that was discussed.

Emergency Evacuation: Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation: Familiarize yourself with all exit doors of the classroom and the building. Remember that the nearest exit door may not be the one you used when you entered the building.

If you require assistance to evacuate, inform me in writing during the first week of class. In the event of an evacuation, follow my instructions or those of class instructors. Do not re-enter a building unless you are given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.

Qualified Students with Disabilities: The University of Texas at Austin provides, upon request, appropriate academic adjustments for qualified students with disabilities. All University rules concerning accommodations must be followed, including the student arranging for special accommodations at least two weeks *prior* to the examination. In the absence of such *prearrangement*, the student will be expected to take the exam with the rest of the class at the regularly scheduled exam time. Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259 (voice) or 512-232-2937 (video phone) or <http://diversity.utexas.edu/disability/2013/03/welcome/>.

Behavior Concerns Advice Line (BCAL): If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual's behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit <https://operations.utexas.edu/units/csas/bcal.php>.

Campus Carry: Students should familiarize themselves with the information provided by the University regarding the implementation of "Campus Carry" legislation. You will find an information sheet specifically for students (as well as sheets for parents, visitors, faculty, and staff) at <http://campuscarry.utexas.edu/info-sheets>.

**Tentative Lecture/Pre-Lab Schedule Fall 2016
PHM 183F/PHM 183G**

Date	Topic
August 27	Course Introduction
August 30	Introduction to Basic Intravenous Admixtures
September 1	Introduction to Basic Intravenous Admixtures – continued
September 6	Pre-Lab for Lab 1 Sterile Product Containers and IV Therapy
September 8	Sterile Product Containers and IV Therapy – continued Math Quiz
September 13	Pre-Lab for Lab 2
September 15	Laminar Air Flow Hoods/Isolators and Techniques James P. Wilson, PharmD, PhD
September 20	Pre-Lab for Lab 3 <i>Laminar Air Flow Hoods/Isolators and Techniques - continued</i>
September 22	Introduction to References
September 27	Pre-Lab for Lab 4 Reference Quiz Review
September 29	Routes and Dosage Forms of Parenteral Therapy
October 4	Pre-Lab for Lab 5 Introduction to USP <797>
October 6	Exam 1
October 11	Pre-Lab for Lab 6 USP <797> – continued
October 13	Handling Hazardous Drugs James P. Wilson, PharmD, PhD
October 18	Pre-Lab for Lab 7 Handling Hazardous Drugs – continued
October 20	<i>Fluids and Electrolytes</i> <i>J. Nile Barnes, EMT-P(LP), PharmD, BCPS</i>
October 25	Pre-Lab for Lab 8 <i>Fluids and Electrolytes – continued</i>
October 27	Total Parenteral Nutrition
November 1	<i>Medication Errors/Patient Safety</i> <i>James P. Wilson, PharmD, PhD</i>
November 3	Home Health Care Ernie Faucher, Stonegate Pharmacy
November 8	<i>TSBP and Issues related to Sterile Compounding</i> <i>Ben Santana, RPh, Chief of Compliance, Texas State Board of Pharmacy</i>
November 10	Exam 2
November 15	Exam review and course evaluation (Letters of completion will be passed out at conclusion of review and evaluations. Letters are required for internships during the P4 year in which sterile compounding is involved.)

Lab Schedule and Topics
PHM 183G
Fall 2016

Lab	Week of	Topics
1	Sept 12	Introduction, orientation to lab, procedures and policies, hand-washing, hood-cleaning, use of syringes and needles
2	Sept 19	Ampules, filter needles and straws, use of syringes and needles
3	Sept 26	Fractional saline, mEq, assorted products
4	Oct 3	Powder reconstitution, use of references, fractional saline
5	Oct 10	Powder reconstitution, use of references, assorted products **Mock graded preparation**
6	Oct 17	Complex infusion rates, compatibility and stability, assorted products **Graded preparation (Mid-Term)**
7	Oct 24	Hazardous drugs, media fill, isolator, environmental testing **Graded preparation (Media Fill)**
8	Oct 31	Complex infusion rates, compatibility and stability, assorted products **Graded preparation (Pre-Final)**
9	Nov 7	**Graded preparation (Final)**
10	Nov 14	Final examination product(s) retesting, if necessary

