Integrated Lab Sequence VI
PHRD 5049
CRN# 65299 (M), 62148 (T), 63114 (R)

I. Contact Information:

Course Coordinator:
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Course Instructors:

Professor	Office Phone	Email	Office Location
Dr. Jeff Evans	318-342-1810	jevans@ulm.edu	Shreveport 1004
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Preferred Method of Communication for all instructors: Email

II. Course Pre-requisites/Co-requisites

Pre-requisites: PHRD 5020 Integrated Lab Sequence V
Credit or registration in:
PHRD 5039
PHRD 5047

III. Course Description

1 cr. course: Sixth in a six-semester longitudinal course sequence reinforcing students' knowledge, skills, and attitudes necessary for current and future pharmacy practice, particularly in preparation for advanced pharmacy practice experiences.

IV. Curricular Objectives and Outcomes

Domain 1 – Foundational Knowledge

1.1. Learner (Learner) - Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient-centered care.

Domain 2 – Essentials for Practice and Care

2.1. Patient-centered care (Caregiver) - Provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

2.2. Medication use systems management (Manager) - Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.

2.4. Population-based care (Provider) - Describe how population-based care influences patient-centered care and influences the development of practice guidelines and evidence-based best practices.

Domain 3 - Approach to Practice and Care

3.1. Problem Solving (Problem Solver) – Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.

3.2. Educator (Educator) – Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.

3.3. Patient Advocacy (Advocate) - Assure that patients' best interests are represented.

3.4. Interprofessional collaboration (Collaborator) – Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.

3.5. Cultural sensitivity (Includer) - Recognize social determinants of health to diminish disparities and inequities in access to quality care.

3.6. Communication (Communicator) – Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.

Domain 4 – Personal and Professional Development

4.1. Self-awareness (Self-aware) – Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

4.2. Leadership (Leader) - Demonstrate responsibility for creating and achieving shared goals, regardless of position.

4.3. Innovation and Entrepreneurship (Innovator) - Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.

4.4. Professionalism (Professional) - Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.

ACPE Appendix 1 Elements

Biomedical Sciences

Human Anatomy: Structure of major human body systems at the cellular, tissue, organ, and system level.

Human Physiology: Homeostatic function and normal response reactions across the lifespan of nondiseased human cells, organs, and systems.

Immunology: Human immune system components, innate and adaptive immune responses to infection, injury and disease, and augmentation of the human immune system to prevent disease.

Pharmaceutical Sciences

Clinical Chemistry: Application of clinical laboratory data to disease state management, including screening, diagnosis, progression, and treatment evaluation.

Extemporaneous Compounding: Preparation of sterile and non-sterile prescriptions which are pharmaceutically accurate regarding drug product and dose, free from contamination, and appropriately formulated for safe and effective patient use. Analysis of the scientific principles and quality standards upon which these compounding requirements are based.

Pharmaceutical Calculations: Mastery of mathematical skills required to accurately prepare prescriptions (including extemporaneously compounded dosage forms) that are therapeutically sound and safe for patient use. Calculation of patient-specific nutritional and drug dosing/delivery requirements.

Pharmacogenomics/genetics: Genetic basis for disease and individual differences in metabolizing enzymes, transporters, and other biochemicals impacting drug disposition and action that underpin the practice of personalized medicine.

Pharmacokinetics: Mathematical determination of the rate of drug movement from one therapeutic or physiologic compartment to another. Application of physicochemical and kinetic principles and parameters to therapeutically important issues, such as drug delivery, disposition, therapeutic effectiveness, and beneficial or adverse interactions in general and specific populations.

Pharmacology: Pharmacodynamics, mechanisms of therapeutic and adverse drug actions and interactions, lifespan-dependent variations in physiology or biochemistry that impact drug action and effectiveness, and application of these principles to therapeutic decision making.

Social/Administrative/Behavioral Sciences

Healthcare Systems: Examination of U.S. health systems and contemporary reimbursement models in which patient-centered and/or population-based care is provided and paid for, and how social, political, economic, organizational, and cultural factors influence providers' ability to ensure patient safety and deliver coordinated interprofessional care services.

Pharmacy Law and Regulatory Affairs: Federal and appropriate state-specific statutes, regulations, policies, executive orders, and court decisions that regulate the practice of pharmacy, including the mitigation of prescription drug abuse and diversion.

Practice Management: Application of sound management principles (including operations, information, resource, fiscal, and personnel) and quality metrics to advance patient care and service delivery within and between various practice settings.

Professional Communication: Analysis and practice of verbal, non-verbal, and written communication strategies that promote effective interpersonal dialog and understanding to advance specific patient care, education, advocacy, and/or interprofessional collaboration goals. Exploration of technology-based communication tools and their impact on healthcare delivery, healthcare information, and patient empowerment.

Professional Development/Social and Behavioral Aspects of Practice: Development of professional self-awareness, capabilities, responsibilities, and leadership. Analysis of contemporary practice roles and innovative opportunities, and inculcation of professional attitudes, behaviors, and dispositions.

Clinical Sciences

Clinical Pharmacokinetics: Application of basic pharmacokinetic principles and mathematical models to calculate safe and effective doses of drugs for individual patients and adjust therapy as appropriate through the monitoring of drug concentration in biological fluids.

Health Informatics: Effective and secure design and use of electronic and other technology-based systems, including electronic health records, to capture, store, retrieve, and analyze data for use in patient care, and confidentially/legally share health information in accordance with federal policies.

Health Information Retrieval and Evaluation:
Critical analysis and application of relevant health sciences literature and other information resources to answer specific patient-care and/or drug-related questions and provide evidence-based therapeutic recommendations to healthcare providers or, when appropriate, the public.

Medication Dispensing, Distribution and Administration: Preparation, dispensing and administration of prescriptions, identification and prevention of medication errors and interactions, maintaining and using patient profile systems and prescription processing technology and/or equipment, and ensuring patient safety. Educating about appropriate medication use and administration.

Patient Safety: Analysis of the systems- and human-associated causes of medication errors, exploration of strategies designed to reduce/eliminate them, and evaluation of available and evolving error-reporting mechanisms.

Pharmacotherapy: Evidence-based clinical decision making, therapeutic treatment planning, and medication therapy management strategy development for patients with specific diseases and conditions that complicate care and/or put patients at high risk for adverse events. Emphasis on patient safety, clinical efficacy, pharmacogenomic and pharmacoeconomic considerations, and treatment of patients across the lifespan.

Public Health: Exploration of population health management strategies, national and community-based public health programs, and implementation of activities that advance public health and wellness, as well as provide an avenue through which students earn certificates in immunization delivery and other public health-focused skills.

Self-Care Pharmacotherapy: Therapeutic needs assessment, including the need for triage to other health professionals, drug product recommendation/selection, and counseling of patients on non-prescription drug products, non-pharmacologic treatments and health/wellness strategies.

V. Course Specific Objectives and Outcomes

At the conclusion of this course, students should be able to: Demonstrate knowledge, skills, and attitudes related to the application of third professional year course material.

VI. Course Topics-See tentative teaching schedule

VII. Instructional Methods and Activities

Teaching methods may include, but are not limited to: case/scenario based teaching; problem-based learning; service learning; individual/group exercises; self-directed learning; errors and omissions; role playing; online teaching; applied learning; point-of-care testing; projects/presentations; assignments/exercises; traditional lectures and the use of technology such as Power Point, Audience

Response System, Human Patient Simulation, Recitations, Distance Learning, Camtasia, Moodle, ExamSoft, and other technology.

VIII. Evaluation and Grade Assignment

Laboratory exercises will comprise 75% of your grade in this course. Each lab may be developed by individual faculty member(s) and may consists of an undetermined number of points. Each lab will be weighted equally for the semester.

> OSCE labs REQUIRE a grade of 75% or higher to pass this course. Remediation will be available and required if a grade sufficient to pass is not achieved on the first attempt. Focused remediation will continue until a passing score is attained or the semester ends. The average of all attempts (minimum 75%) will be used for the student's lab score for the activity after successful remediation.

Lab quizzes will comprise 10% of your grade in this course. Quizzes may be given at any time during class and will be timed by the instructor. Tardy students will <u>not</u> be given extra time to complete the quizzes. All work must be complete when the instructor calls for time of submission. All quizzes will be taken in class, unless otherwise instructed by the professor. Quizzes taken outside of class time will result in a grade of zero.

> Quiz content each week will cover up to 30 drugs taken from the top 300 drug list. Content may include brand and generic names, medication classification, FDA indications and dosages, common adverse effects, contraindications and precautions, key counseling points, pharmacology, pharmacokinetics, drug interactions, and dosage forms. Quiz content may also cover pharmaceutical calculation and biostatistics concepts. Students must achieve an average of **75%** or higher on the lab quizzes to pass this course. Students not achieving a 75% average will be required to make 75% on a comprehensive remediation exam at the end of the semester in order to pass the course.

Professionalism: Professionalism will comprise 10% of the final lab grade. Each week, 5 points may be earned or lost. Demeanor, enthusiasm, neatness, laboratory technique, and punctuality will be evaluated. <u>All</u> points will be deducted for not wearing lab coat or for other dress code infractions, for poor condition of laboratory equipment, desk or drawer, for poor demeanor/attitude in lab, incomplete assigned work or unexcused tardies. <u>This will be checked weekly</u>. If benches are always clean, and drawers are neat, and the student always wears a pharmacy jacket, conducts himself/herself in a professional manner, work is complete, and is on time, all 5 points will be earned. A dress code will be enforced in this course (see section IX). Food or drink is not permitted in the lab. You may keep a bottle of water only (no other beverage) by your backpack.

> Labs involving interprofessional students will be completed during this course. Students are expected to behave with utmost professionalism when communicating/interacting with students and/or faculty from other professions. If it is deemed by course faculty that a violation in professional standards has occurred, a grade of zero (0) will be given for the activity and the student may be referred to the Committee on Ethical and Professional Standards.

A Longitudinal Exam will be administered as a part of this course. This exam will comprise 5% of your final grade.

Exams and/or quizzes will NOT be given early.

Laboratory Exercises	75%
Professionalism	10%
Quizzes	10%
Longitudinal Exam	5%
Total	**100%**

Grading Scale:

89.5 – 100%	A
79.5 – 89.49%	B
69.5 – 79.49%	C
59.5 – 69.49%	D
≤59.49%	F

Undergraduate mid-term grades will be posted on-line for students to view via Banner. Mid-term grades indicate a student's status at mid-semester only and do not indicate the final performance outcome of a student.

Assignments turned in late will result in a grade of zero. Partial credit may be given at the discretion of the instructor.

Any student earning a non-passing grade of "D" or "F" on an exam will be required to participate in mandatory tutoring sessions offered by the course instructor(s) until such a time that they obtain a passing average in the course.

Student Success Policy: http://www.ulm.edu/pharmacy/currents.html

Remediation Policy: http://www.ulm.edu/pharmacy/currents.html

IX. Class Policies and Procedures

At a minimum, all policies stated in the current ULM Student Policy Manual & Organizational Handbook should be followed (see http://www.ulm.edu/studentpolicy/). Additional class policies include:

a. Textbooks (required):

1. A nonprogrammable calculator will be required for some class assignments and quizzes. Please have available at all times. You will not be allowed to use a cell phone calculator.
2. Texts for all pre- or co-requisite courses.
3. Additional REQUIRED reading materials may be posted on Moodle by course faculty.

b. Attendance Policy: Class attendance is regarded as an obligation as well as a privilege, and students are expected to know attendance regulations and to attend regularly and punctually at classes in which they are enrolled. Failure to do so may: (1) prevent access to the classroom during regularly scheduled times; (2) jeopardize a student's scholastic standing; and (3) lead

to suspension from the School or University. Students must submit excuses for class absences to course coordinators within three class days after returning to classes.

Professors shall accept an official University excuse. With the following exceptions, professors are to determine whether absences are excused or unexcused: 1) Absences arising from authorized trips away from the University or from special duties at the University shall be excused. 2) Absences arising from a student's confinement in a hospital or other in-patient facility or doctor's excused absences shall be excused. Students are responsible for providing documentation to the faculty, which will be verified. 3) Absences arising from a death in the immediate family shall be excused. The immediate family is defined as spouse, child, step-child, mother, father, sister, brother, grandmother, grandfather, step-mother, step-father, step-brother, step-sister, aunt, uncle, mother-in-law or father-in-law.

Regarding classes held virtually through Zoom, students must have camera turned on and be within view for the duration of the lab to be considered present. At the discretion of the instructor, students may receive partial or no credit if the student is not on camera during the virtual session.

c. Make-up Policy: Each student is expected to attend lab at the **date and time specified**. If a student cannot attend lab, they must email or speak directly with the course coordinator prior to the lab or **as soon as possible**. The ULM COP Excused Absence Policy must be followed. Please refer to the official document for details. If possible, students with **excused absences** will be switched to an alternate lab section to complete the activity as scheduled. If this is not possible, make-up of excused absences will be given at the discretion of the course coordinator. Make-up lab exercises will be prepared at the same or higher level than the original exercise and may be given as a written exam or an oral exam in the presence of another faculty member. Failure to attend a scheduled make-up lab will result in a zero (0) grade for those lab activities. Students missing lab exercises due to a University approved excuse may make-up the lab exercises at a time determined by the course coordinator. Students with **unexcused absences** will **not** be allowed to attend a different section within the same week of the missed lab as this provides an unfair advantage to students in the earlier sections. Students with **unexcused absences** will **only** be allowed to make-up **high stakes assessments** such as OSCEs. The missed assessment will result in a zero (0) grade in the gradebook until the make-up assessment is completed. Grading of the make-up will follow the remediation policy with a zero (0) counting as the first attempt. http://www.ulm.edu/pharmacy/currents.html

d. Academic Integrity: Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 of the ULM Student Policy Manual - http://www.ulm.edu/studentpolicy/). All professional students will adhere to the standards set forth in the College of Pharmacy's Code of Conduct http://www.ulm.edu/pharmacy/currents.html

Unless expressly allowed by the instructor, the use of artificial intelligence (AI) tools and applications (including ChatGPT, DALL-E, and others) to produce content for course assignments is a violation of the ULM College of Pharmacy's Code of Conduct and is prohibited.

Censures (Penalties)

Academic dishonesty will result in a referral to the Committee on Ethical and Professional Standards with a recommendation for a grade of "F" for the course and expulsion from the College of Pharmacy. Academic dishonesty includes, but is not limited to, the use of

information taken from others' work or ideas, the provision of help to others on non-collaborative evaluations (tests, quizzes, etc.), collaboration on take home exams, or the use of unapproved information or electronic devices to assist in obtaining an answer to the question.

e. Course Evaluation Policy: At a minimum, students are expected to complete the online course evaluation.

f. Student Services: Information concerning student services in the College of Pharmacy can be found in the College of Pharmacy Student Handbook. In particular, students should pay special attention to the University's technical standards and policies concerning students with special needs (http://www.ulm.edu/studentpolicy/studentpolicy.pdf). ULM student services, such as the Student Success Center (http://ulm.edu/cass/), Counseling Center (http://ulm.edu/counselingcenter/), and Student Health Services, is available at the following Student Services web site http://ulm.edu/studentaffairs/. Students with special needs requiring accommodations MUST follow the process described at http://rxweb.ulm.edu/pharmacy/student/specialneeds.pdf .

Mental Wellness on the ULM Campus

If you are having problems with emotional, social, and/or behavioral issues please call any of the mental health clinics on the ULM campus to make an appointment. All services are free to ULM students, staff, and faculty, and are strictly confidential.

- COP Office of Student and Professional Affairs: 342-3800
- ULM Counseling Center: 342-5220
- Marriage and Family Therapy Clinic: 342-5678
- Community Counseling Center: 342-1263
- ULM HELPS (Helping Educators and Learners Prevent Suicide) Project Office: 342-1335

The University of Louisiana at Monroe strives to serve students with special needs through compliance with Sections 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. These laws mandate that postsecondary institutions provide equal access to programs and services for students with disabilities without creating changes to the essential elements of the curriculum. While students with special needs are expected to meet our institution's academic standards, they are given the opportunity to fulfill learner outcomes in alternative ways. Examples of accommodations may include, but are not limited to, testing accommodations (oral testing, extended time for exams), interpreters, relocation of inaccessible classrooms, permission to audiotape lectures, note-taking assistance, and course substitutions.

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds, including federal loans and grants. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct, sexual violence, sexual harassment and retaliation. If you encounter unlawful sexual harassment or gender-based discrimination, please contact Student Services at 318-342-5230 or to file a complaint, visit www.ulm.edu/titleix.

g. Emergency Procedures: Please review the emergency escape plan in the classrooms and hallways of the Bienville building. Move quickly and in an orderly manner to the appropriate stairwell and exit the building. The meeting place for this class will be the far end of the north parking lot between the Bienville building and Broadmoor Blvd. Under no circumstances is the elevator to be used for emergency evacuation. Any student needing assistance should notify the professor immediately. For emergencies, to contact University Police, call 1-911 from landlines and 342-5350 from cell phones.

h. Federal Regulations require *determination and verification of every students' physical location while enrolled in classes (where they are physically located while taking classes), regardless of the delivery method (on campus, online). At the beginning of every semester and whenever physical location changes, students must update or verify their current location through banner https://ssbprod.ec.ulm.edu/PROD/bwgkogad.P_SelectAtypUpdate. Students should do this by the end of the first week of classes.*

i. This course is a major requirement for the Pharm.D. degree in Pharmacy. Completion of degree requirements leads to eligibility for professional licensure and/or certification in Louisiana upon graduation. Federal Regulations require universities to provide information to students about the alignment between Louisiana's requirements and those of other states. ULM has created a web page with discipline-specific information containing hyperlinks to Licensure Boards in the United States **https://www.ulm.edu/professional-licensure-disclosures/index.html**. Program Directors and/or faculty will discuss this information with you during advising or other program meetings but is also available to answer questions and address any concerns you might have. It is also important to note that licensure or certification requirements are subject to change. Although ULM Program Directors annually review and update licensure information for every state, the faculty recommends that before enrolling in a program and throughout enrollment, students communicate with the applicable state board to confirm understanding and whether upon completion of ULM's program, they will meet requirements.

j. Lab Cell Phone Policy: All cell phones should be turned off during class and kept inside your purse, book bag, etc. near the shelves against the wall. Cell phones are not allowed at your lab bench at ANY time without the prior consent of the lab instructor!!! Students found to be in possession of a cell phone during lab will be considered to have committed an act of academic dishonesty, charged likewise, and brought before the committee on ethical and professional conduct. If a student has a need to be notified during an emergency situation during class, he/she should leave the telephone number of the Office of Student and Professional Affairs, 318-342-3800, with the person who may need to contact them emergently.

k. Dress Code Policy:

General Personal Care Standards:

a. Adequate precautions should be taken to maintain good personal hygiene.
b. Appropriate attire will be worn when compounding.
c. Nails should be well groomed, manicured and of short to medium length to facilitate compounding activities.
d. Hair should be neat, clean, styled off the face and out of the eyes.

Appropriate Attire for Routine College of Pharmacy Attendance:

a. LAB COAT IS MANDATORY IN ALL PRACTICE LABS
b. Clean, professional clothing and shoes:
    - Neckties are mandatory for all gentlemen
    - An undershirt should be worn if undergarments are visible through clothing.
    - Skirts should be no shorter than one inch above the knee when sitting.
    - No spaghetti straps, halter tops, tube tops, showing of mid-drift, low cut tops, or organization-branded jerseys.
    - Dress Capri pants can be worn.
    - All shoes must be closed toe.

Dress Code Violation
At the discretion of the laboratory instructor, half or all of the student's total daily lab professionalism points may be deducted for not wearing proper laboratory attire for any dress code infractions. If a student is constantly reminded to adhere to the current dress code policy, that student may be asked to leave the lab and notification will be sent to the dean of academic affairs by the lab instructor.

The course coordinators reserve the right to adjust the syllabus or schedule, in accordance with University and School policies and procedures.
***All policies in the ULM COP student handbook will be followed.

Thank you for setting a great example for our students. Your commitment to following mask mandate and social distancing guidelines has played a significant role in the reduction of the spread of the COVID virus at ULM. Due to present circumstances, ULM students, employees, and guests should continue to follow current CDC guidelines by requiring masking and social distancing in all classrooms and buildings throughout campus. Everyone is encouraged to take advantage of frequent hand-washing, available hand sanitizer, masks, and testing opportunities.

As this is an ever-changing situation, please continue to monitor university communication. For more information click here.

PHRD 5049 ILS VI 2024 Schedule (The instructor reserves the right to adjust the schedule as needed AND classroom and hours of class)

Week	Topic	Assessment	Professor	Location
1 **1/15-19**	Martin Luther King Holiday (Jan 15) DIQ Intro/DIQ Part 1 Due/Start Paper		Manor, Barbo, Deuber	Asynchronous
2 **1/22-26**	Skills Review Escape Lab		Barbo	Lab
3 **1/29-2/2**	Informatics/Drug Safety		Horace, Below	Lab
4 **2/5-2/9**	Morris and Dickson Tour (Monday) eCare Plan/Error and Omission	Quiz 1	Barbo	Lab
5 **2/12-16**	**Mardi Gras Break (2/12-13)** DIQ Paper Part 2 Paper Due 2/16			Asynchronous
6 **2/19-23**	Women's Health/Contraception	Quiz 2	Terrell	Zoom
7 **2/26-3/1**	OSCEs	Quiz 3	Barbo, Clinical Faculty	Lab
8 **3/4-8**	PA/Pharm.D. IPE **(Tu/Th only)**	Quiz 4	Barbo, E.Evans	Lab
9 **3/11-15**	Recitation **Part 3 Peer Reviews Due**	Quiz 5	Evans, Clinical Faculty	Zoom
10 **3/18-22**	Mock Pharmacy Practice Law Review	Quiz 6	Evans, Barbo	Lab

11 **3/25-29**	Recitation -Hem/ONC-Lung Cancer	Quiz 7	Comeau	Zoom
12 **4/1-5**	**Spring Break Holiday (3/29-4/5)** **NO LABS**			
13 **4/8-12**	Pediatrics P**art 4 Final Paper Due**	Quiz 8	Tice	Lab
14 **4/15-19**	Guideline Review	Quiz 9	Barbo, Comeau	Active Learning Room
15 **4/22-26**	Recitation	Quiz 10	Evans, Clinical Faculty	Zoom
16 **4/29-5/3**	Longitudinal Exam- Tuesday 04/30 **Student Study Day 5/1**			P3 classroom
17 **5/6-10**	**Finals NO LABS**			