

PHRD 4020 Integrated Lab Sequence I**PHRD 4020****CRN# 41562(W), 41852(R)****I. Contact Information:****Course Coordinator:**

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Office Hours: MW 8:30AM-12PM; T 1-4PM

Preferred Method of Communication: Email

Course Instructors:

Professor	Office Phone	Email
Dr. Sampognaro	318-342-1721	sampognaro@ulm.edu
Dr. Hill	318-342-1730	shill@ulm.edu
Dr. Miller	318-342-1830	vmiller@ulm.edu
Dr. McGee	318-342-3305	emmcgee@ulm.edu

Preferred Method of Communication for all instructors: Email

II. Course Pre-requisites/Co-requisites**Course Prerequisites:** None**Course Co-requisites:** P1 standing**III. Course Description**

1 cr. course: First in a six-semester longitudinal course sequence reinforcing students' knowledge, skills, and attitudes necessary for current and future pharmacy practice, particularly for the community setting.

IV. Curricular Objectives and Outcomes**COEPA 2022 Educational Outcomes****Domain 1– Knowledge**

1.1 Scientific Thinking (Learner) – Seek, analyze, integrate, and apply foundational knowledge of medications and pharmacy practice (biomedical; pharmaceutical; social, behavioral, administrative; and clinical sciences; drug classes; and digital health).

Domain 2 – Skills

2.1 Problem-solving Process (Problem-solver) - Use problem solving and critical thinking skills, along

with an innovative mindset, to address challenges and to promote positive change.

2.2 Communication (Communicator) - Actively engage, listen, and communicate verbally, nonverbally, and in writing when interacting with or educating an individual, group, or organization.

2.3 Cultural and Structural Humility (Ally) - Mitigate health disparities by considering, recognizing, and navigating cultural and structural factors (e.g. social determinants of health, diversity, equity, inclusion, and accessibility) to improve access and health outcomes.

2.4 Person-centered Care (Provider) - Provide whole person care to individuals as the medication specialist using the Pharmacists' Patient Care Process.

2.5 Advocacy (Advocate) - Promote the best interests of patients and/or the pharmacy profession within healthcare settings and at the community, state, or national level.

2.6 Medication-use Process Stewardship (Steward) - Optimize patient healthcare outcomes using human, financial, technological, and physical resources to improve the safety, efficacy, and environmental impact of medication use systems.

2.7 Interprofessional Collaboration (Collaborator) - Actively engage and contribute as a healthcare team member by demonstrating core interprofessional competencies.

2.8 Population Health and Wellness (Promoter) - Assess factors that influence the health and wellness of a population and develop strategies to address those factors.

2.9 Leadership (Leader) - Demonstrate the ability to influence and support the achievement of shared goals on a team, regardless of one's role.

Domain 3 – Attitudes

3.1 Self-awareness (Self-aware) - Examine, reflect on, and address personal and professional attributes (e.g., knowledge, metacognition, skills, abilities, beliefs, biases, motivation, help-seeking strategies, and emotional intelligence that could enhance or limit growth, development, & professional identity formation.

3.2 Professionalism (Professional) - Exhibit attitudes and behaviors that embody a commitment to building and maintaining trust with patients, colleagues, other health care professionals, and society.

ACPE Appendix 1 Elements

Biomedical Sciences

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

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.

Medical Microbiology: Structure, function, and properties of microorganisms (bacteria, viruses, parasites, and fungi) responsible for human disease, and rational approaches to their containment or eradication.

Pathology/Pathophysiology: Basic principles, mechanisms, functional changes and metabolic sequelae of human disease impacting cells, organs, and systems.

Pharmaceutical Sciences

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.

Pharmaceutics/Biopharmaceutics: Physicochemical properties of drugs, excipients, and dosage forms important to the rational design and manufacture of sterile and non-sterile products. Application of physical chemistry and dosage form science to drug stability, delivery, release, disposition, pharmacokinetics, therapeutic effectiveness, and the development of quality standards for drug products.

Social/Administrative/Behavioral Sciences

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.

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: Development of professional self-awareness, capabilities, responsibilities, and leadership.

Clinical Sciences

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 Prescribing, Preparation, Distribution, Dispensing, and Administration: Prescribing, preparing, distributing, dispensing, and administering medications including, but not limited to: injectable medications, identification and prevention of medication errors and interactions, maintaining and using patient profile systems, prescription processing technology and/or equipment including oversight of support personnel, and ensuring patient safety. Educating about appropriate medication use and administration for various disease states including substance use disorder. All students must receive training in immunizations.

Patient Assessment: Evaluation of patient function and dysfunction through the performance of tests and assessments leading to objective (e.g., physical assessment, health screening, and lab data interpretation) and subjective (patient interview) data important to the provision of care.

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.

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 first professional year course material.

VI. Course Topics – See Tentative 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; projects/presentations; assignments/exercises; traditional lectures and the use of technology such as Power Point, Audience Response System, Human Patient Simulation, Distance Learning, Camtasia and Moodle online assignments.

VIII. Evaluation and Grade Assignment:

Weekly laboratory exercises and assignments will account for 65% of the final lab grade. Quizzes concerning assigned pre-lab exercises and/or reading materials may be given at any time throughout the semester and will be counted as part of the weekly lab grade. Each lab may be developed by individual faculty members and may consist of an undetermined number of points. It is extremely important to prepare for weekly laboratory exercises, as they account for the majority of the total lab grade.

Quizzes covering the “Top 200 Drugs” will account for 10% of the lab grade. Each drug quiz will cover 10 cards per week for a total of 10 quizzes in this lab course; the second 100 drugs will be covered in the next lab sequence. Please refer to the Top 200 Drug Quiz Schedule. Quiz content can include the brand and generic names, drug class, FDA Indications/dosages, and dosage form(s). **A drug quiz average of 70% or higher is required in order to pass this course.** Students with a quiz average below 70% after the last quiz will be allowed a targeted remediation of the drug quizzes. This test will be administered by the lab coordinator during finals week. The student must score at least a 70% on this exam in order to pass this course. The student will then receive a 70% average for the drug quiz final average.

Professionalism will total 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. **All** points will be deducted for not wearing lab coat or for other dress code infractions, for poor condition of laboratory equipment, desk or drawer, or for poor demeanor/attitude in lab. This will be checked weekly. If benches are always clean and drawers neat and the student always wears a pharmacy jacket and conducts themselves in a professional manner, all 5 points will be earned. A dress code will be enforced in this course (see section J). **Food or drink is not permitted by the lab stations. You may keep a bottle of water only (no other beverage – colas or coffee) by your backpacks or lunch in your lunch bag.** Pop quizzes covering “professionalism points” may be given throughout the semester.

ILS I will also contain material in the area of immunizations, which will comprise 10% of your grade in this course. The American Pharmacist’s Association “Pharmacy-Based Immunization Delivery” certification program will be used. This is an innovative and interactive training program that teaches pharmacists (and students) the skills necessary to become a primary source for vaccine information and administration. The program teaches the basics of immunology and focuses on practice implementation and legal/regulatory issues.

There are three components to the certificate-training program:

- Self-study modules with case studies and assessment exam
- Live seminar with final exam
- Hands-on assessment of intramuscular and subcutaneous injection technique

A Certificate of Achievement is awarded to participants who successfully complete all activity requirements, which include the self-study component, live training seminar, and the injection technique assessment.

Successful completion is defined as a score of 70% or better on both the self-study, and online final exam, and completion of the live seminar assessments.

1. Online Self-Study Modules: A score of 70% or better is required for each quiz (in no more than two attempts) **PRIOR** to attending the live training seminar. **If the self-study exam is not completed by the first day of the live seminar, the student will not be allowed to attend the live seminar and will receive a 0 for the immunization portion of lab. The student will be required to complete immunization certification through alternate means.**

The online self-study modules and assessment are required for successful completion of ILS-I, and also required for APhA Pharmacy-Based IMZ training certificate.

2. Live Seminar: *Attendance is required for all students.*
3. Online Final Exam: A score of 70% or better is required by the due date set forth by the instructor. Participants may have a maximum of two attempts to achieve a passing score. *This component is a requirement for successful completion of ILS-I, and also required for APhA Pharmacy-Based IMZ training certificate.*
4. Assessment: Demonstrate competency in one subcutaneous and two intramuscular injections assessed by trained evaluators during the live training lab date. This component is required by APhA in order to earn a Certificate of Achievement. *Points will not be attached to this component for ILS-I but attendance is mandatory.*
5. NOTE: The Certificate of Achievement is invalid without written proof of current CPR or BCLS certification. In addition, all requirements by the Louisiana State Board of Pharmacy must be met prior to engaging in immunization practice.

Longitudinal NAPLEX Exam will be given as part of the lab sequence each semester. Your grade on this exam will constitute 5% of your lab grade.

Exercises and/or quizzes will NOT be given early.

Laboratory Exercises	65%
Immunization Education	10%
Drug Quizzes	10%
Professionalism	10%
Longitudinal NAPLEX Exam	<u>5%</u>
Total	100%

Course Grading Scale:

- A = 89.5 – 100%
- B = 79.5 – 89.4%
- C = 69.5 – 79.4%
- D = 59.5 - 69.4%
- F = ≤ 59.4%

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.

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/documents/ospa/earlyintervention.pdf>

Remediation Policy: <http://www.ulm.edu/pharmacy/documents/ospa/remediationpolicy.pdf>

IX. Class Policies and Procedures:

The University's policies and protocols for responding to the COVID-19 pandemic are focused on maintaining a safe and healthy campus environment. The plans align with federal, state and local guidelines. Safety requirements include good hygiene, including frequent hand-washing, maintaining 6-foot social distancing and wearing a face mask or covering inside all campus buildings and in any area where social distancing is not feasible. The University expects all employees and students to comply with these protocols. Failure to comply with these safety requirements can result in disciplinary action and students may be removed from class and redirected to online instruction.

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 verifying 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.

- 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.
<http://www.ulm.edu/pharmacy/documents/ospa/excusedabsence.pdf>

- 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 School of Pharmacy's Code of Conduct (<http://www.ulm.edu/pharmacy/documents/ospa/codeofconductv82011.pdf>).

AI Conditional Use

Students will be permitted to use Artificial Intelligence (AI) in this course only for specified assignments/tasks designated by the instructor(s) and/or explicitly stated in the directions. Additionally, the instructor(s) is at liberty to indicate the specific AI tool that students can use. The goal of allowing the use of AI for specific assignments is to make space for critical engagement and practice with these tools. Please note that while we may use AI for some in-class activities, students may not use AI tools for any other assignment submissions unless explicitly stated by the instructor(s) and/or directions.

Censures (Penalties)

Academic dishonesty will result in a referral to the Academic Standards and Ethics Committee. If the student is found guilty of Ethical and Professional misconduct by the committee, they will receive a zero for the assigned points (graded assignment or test) and up to an "F" in the course from the course coordinator in addition to any disciplinary action recommended by the Academic Standards and Ethics Committee. 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, ec.), collaboration on take home exams, or the use of unapproved information or electronic devices to assist in obtaining answers.

- 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 School of Pharmacy can be found in the School 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. The course coordinators reserve the right to adjust the syllabus or schedule, in accordance with University and School policies and procedures.**
- 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/bwqkoqad.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!!!** *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 with dress shirt or polo style shirt 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.
- COP approved scrubs can be worn with matching top and bottom. No sweatshirts or T-shirts allowed.

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.

*****All policies in the ULM COP student handbook will be followed.**

Tentative Course Schedule: Integrated Lab Sequence I (PHRD 4020), Fall 2024

There are two sections of this course. The meeting days and times are as follows: *Wednesday and Thursday from 1p.m-3:50 p.m.*

Date	Topic	Assessment	Professor	Location
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Week 1 Aug. 26-30	Bench Assignments/Syllabus, Intro to Lab/Inventory/Safety, Intro to PioneerRx and Basic Prescription Components		Barbo	Lab
Week 2 Sept. 2-6	Community Pharmacy Workflow, Prescription Fulfillment Activity		Barbo	Lab
Week 3 Sept. 9-13	Introduction to Communication, Introduction to PPCP All Meet Wednesday Sept 11th		Sampognaro, S Hill	P1 Classroom
Week 4 Sept. 16-20	Immunization Lecture All Meet Thursday Sept 19th	Quiz 1	Barbo, Miller	P1 Classroom
Week 5 Sept. 23-27	Immunization Lecture All Meet Wednesday Sept 25th	Quiz 2	Barbo, Miller	P1 Classroom
Week 6 Sept. 30-Oct. 4	Immunization Course Vaccine Administration – Skills Training and Assessment	Quiz 3	Barbo, Miller	Lab
Week 7 Oct. 7-11	Verbal Telephone Order, Flavoring, Pharmaceutical Measurement	Quiz 4	Barbo	Lab
Week 8 Oct. 14-18	<i>Fall Break Oct. 17-18</i>		Labs will not meet	
Week 9 Oct. 21-25	Error prone abbreviations, Patient Counseling Practice, eCare Plan Introduction, Into to Check Techs & Prescription Verification Activity	Quiz 5	Barbo	ALR
Week 10 Oct. 28-Nov. 1	Check Tech & Immunization Cases	Quiz 6	Barbo	Lab/ Lab Classroom
Week 11 Nov. 4-8	Compounding Exercise (Troches)	Quiz 7	Barbo	Lab
Week 12 Nov. 11-15	Pharmaceutics (suspensions, emulsions)	Quiz 8	Barbo	Lab
Week 13 Nov. 18-22	Calculations Lab	Quiz 9	McGee, Barbo	Lab
Week 14 Nov. 25-29	Thanksgiving 27-29 W-F		Labs will not meet	
Week 15 Dec. 2-6	Longitudinal NAPLEX Readiness Exam All Meet Tuesday December 3rd December 4th Student Study Day	Quiz 10	Assessment	P1 Classroom
Week 16 Dec. 9-13	Finals 4-5		Labs will not meet	

*The instructor reserves the right to adjust the schedule as needed.