

PHRD 4020 Integrated Lab Sequence I**PHRD 4020****CRN# 41561(T), 41562(W), 41852(R)****I. Contact Information:****Course Coordinator:**

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Course Instructors:

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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**Domain 1– Foundational Knowledge**

1.1.1 Develop and demonstrate depth and breadth of knowledge in pharmaceutical and clinical sciences.

1.1.4 Apply knowledge in foundational sciences to solve therapeutic problems and advance patient-centered care.

Domain 2 – Essentials for Practice and Care

2.1.2 Interpret evidence and patient data.

- 2.1.3 Prioritize patient needs.
- 2.1.7 Document patient care related activities.
- 2.2.3 Utilize technology to optimize the medication use system.
- 2.2.6 Apply standards, guidelines, best practices, and established processes related to safe and effective medication use.

Domain 3 – Approach to Practice and Care

- 3.1.1 Identify and define the primary problem.
- 3.6.2 Actively listen and ask appropriate open and closed-ended questions to gather information
- 3.6.4 Use effective interpersonal skills to establish rapport and build trusting relationships.
- 3.6.5 Communicate assertively, persuasively, confidently, and clearly.
- 3.6.9 Document patient care activities clearly, concisely, and accurately using appropriate medical terminology.

Domain 4 – Personal and Professional Development

- 4.1.4. Approach tasks with a desire to learn.
- 4.1.5. Demonstrate persistence and flexibility in all situations; engaging in help seeking behavior when appropriate.
- 4.1.6. Strive for accuracy and precision by displaying a willingness to recognize, correct, and learn from errors.
- 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.
- 4.4.4 Recognize that one's professionalism is constantly evaluated by others.

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/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

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 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 will include the brand and generic names, drug class, dosage form(s), and strengths. Please refer to the Top 200 Drug Quiz schedule. **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 the last week of scheduled labs (the week before finals). 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 new 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 live seminar assessments.

1. Online Self-Study Modules: A score of 70% or better is required (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, 20 points per day will be deducted from your lab grade until the self-study is completed or a score of zero is obtained.**

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: Will be conducted over two lab periods. *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 seminar. 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.*
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.

***You will be required to upload a copy of your Medication Administration Registration from the Louisiana Board of Pharmacy (LABP) to Moodle as an artifact for lab. This can be done after you obtain your Pharmacy Intern Permit from the board. In order to do this, you must apply to the LABP by completing Form 19 on the LABP website and submitting this along with a copy of your APhA Immunization Certificate of Achievement (COA), and a copy of your current BLS card. When your credentials have been verified, the Board will send you a letter (or email) of approval containing your Medication Administration Registry Number. You must first obtain your pharmacy intern permit number before applying for your Medication Administration Registration number. Once you obtain your permit number, you may then apply for your Medication Administration number.

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 due to a valid University excuse, he/she must speak directly with the course coordinator, as soon as possible. In case of emergency, the course coordinator must be notified within 48 hours of the emergency. The ULM COP Excused Absence Policy must be followed. Please refer to the official document for details. 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 will make-up the lab exercises at a time determined by the course coordinator.*

<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>).

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 School 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 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/bwggkogad.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:
- Adequate precautions should be taken to maintain good personal hygiene.
 - Appropriate attire will be worn when compounding.
 - Nails should be well groomed, manicured and of short to medium length to facilitate compounding activities.
 - Hair should be neat, clean, styled off the face and out of the eyes.
- Appropriate Attire for Routine College of Pharmacy Attendance:**
- LAB COAT IS MANDATORY IN ALL PRACTICE LABS
 - 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.
- COP approved scrubs can be worn.

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 2021

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

Date	Topic	Assessment	Professor	Location
Week 1 Aug. 17,18,19	Bench Assignments/Syllabus, Intro to Lab/Inventory/Safety, Intro to PioneerRx and Basic Prescription Components		Barbo	Lab
Week 2 Aug. 24,25,26	Prescription Fulfillment Activity		Barbo	Lab
Week 3 Aug.31 <i>All sections meet together</i>	Introduction to My First Patient, Introduction to Communication Rubric		Sampognaro, S Hill	Classroom
Week 4 Sept. 7,8,9	My First Patient Physical Assessment/ Prescription Fulfillment Activities	Quiz 1	Sampognaro, Barbo	Lab
Week 5 Sept. 14,15,16	Pharmaceutical Measurements/Rounding/ Introduction to Check Techs/Drug Information Retrieval-Facts&Comp	Quiz 2	Barbo	Lab
Week 6 Sept. 22	Immunization Course	Quiz 3	Robertson, Stewart, Barbo	Classroom
Week 7 Sept. 29	Immunization Course	Quiz 4	Robertson, Stewart, Barbo	Classroom
Week 8 Oct. 5,6,7	Immunization Course IMZ (Vaccine Administration Technique Video; Skills Training and Assessment)	Quiz 5	Robertson, Stewart, Barbo	Lab
Week 9 Oct. 12,13,14	Compounding Exercise (Troches),	Quiz 6	Walker	Lab
Week 10 Oct. 19,20,21	Check Tech, Verbal Telephone Order Activity/Transfer/Flavoring	Quiz 7	Barbo	Lab

Week 11 Oct. 27	IPE Day	Quiz 8		Lab
Week 12 Nov. 2,3,4	Pharmaceutics (solutions, suspensions, emulsions)	Quiz 9	Walker	Lab
Week 13 Nov. 9,10,11	Error prone abbreviations, Patient Counseling Practice/ECare Plan	Quiz 10	Barbo	Lab classroom Or Active Learning
Week 14 Nov. 17	Longitudinal NAPLEX Readiness Exam		Assessment	Classroom
Week 15 Nov. 22-26	Thanksgiving Holiday (Nov 24-26)		Labs will not meet	
Week 16 Nov. 29-Dec. 3	Finals		Labs will not meet	

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