

## PHRD 5067: Problems in Therapeutics

### I. Contact Information

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\*Email is the preferred mode of contact for all instructors.

### II. Course Prerequisites / Co-requisites

Enrollment in this course requires third year standing.

### III. Course Description

(3 Cr.) Student-centered small group sessions are structured around patient cases on a variety of topics that demonstrate integration of pharmacy disciplines, important clinical and scientific principles and providing pharmaceutical care.

Course enrollment is limited to 24 students.

### IV. Curricular Objectives and Outcomes

#### Cape Educational Outcomes

- A. 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*.
- B. 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).
  - 2.3. Health and wellness (Promoter) - Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.
- C. 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.
  - 3.6. Communication (Communicator) – Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.
- D. 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.
- 4.4. 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 Required Elements

##### A. Social/Administrative/Behavioral Sciences

1. Cultural Awareness: Exploration of the potential impact of cultural values, beliefs, and practices on patient care outcomes.
2. Ethics: Exploration of approaches for resolving ethical dilemmas in patient care, with an emphasis on moral responsibility and the ability to critically evaluate viable options against the needs of patients and other key stakeholders.
3. 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.
4. Pharmacoeconomics: Application of economic principles and theories to the provision of cost-effective pharmacy products and services that optimize patient-care outcomes, particularly in situations where healthcare resources are limited.
5. 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.
6. 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.

##### B. Clinical Sciences

1. 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.
2. Natural Products and Alternative and Complementary Therapies: Evidence-based evaluation of the therapeutic value, safety, and regulation of pharmacologically active natural products and dietary supplements. Cultural practices commonly selected by practitioners and/or patients for use in the promotion of health and wellness, and their potential impact on pharmacotherapy.
3. 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.
4. 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.
5. 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.

6. 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

- A. Systematically gather and generate relevant information using a variety of methods and research tools.
- B. Synthesize information in order to draw conclusions, hypothesize, conjecture alternatives, or decide a course of action.
- C. Make and defend rational, ethical decisions.
- D. For the disease states covered, the students should practice and refine the following abilities:
  1. Recommend appropriate non-pharmacologic therapy based upon patient- and disease-specific information.
    - a) Identify appropriate patients to benefit from non-pharmacologic therapy.
    - b) Non-pharmacologic therapy recommendations are based on patient-specific information (age, weight, height, lifestyle, occupation, etc).
    - c) Non-pharmacologic therapy recommendations are based on disease-specific information (pathophysiology, disease severity).
  2. Recommend pharmacotherapeutic regimens based upon patient-, disease-, and drug-specific information.
    - a) Identify correct drug, dose, route, frequency and duration.
    - b) Drug dose, route, and frequency are justified based on drug-specific data (pharmacology, pharmacokinetics, pharmacodynamics).
    - c) Drug dose, route, frequency and duration are based on patient-specific data (age, weight, renal function, hepatic function, history, signs and symptoms).
    - d) Drug dose, route, frequency and duration are based on disease-state specific data (pathophysiology, disease severity).
    - e) Recommendations include identifying endpoints for treatment based on the history of the underlying disease, desired clinical endpoints, and/or standard guidelines for therapy.
    - f) If recommending IV therapy, an endpoint for IV therapy and guidelines for switching from IV to oral therapy (or other route) are provided.
  3. Monitor pharmacotherapy for efficacy, toxicity, and adverse events.
    - a) Monitoring parameters take into account drug specific data (pharmacology, pharmacokinetics, pharmacodynamics).
    - b) Monitoring parameters take into account patient-specific data (age, weight, renal function, hepatic function, history, signs and symptoms).
    - c) Monitoring parameters take into account disease specific data (pathophysiology, disease severity).
    - d) Identify pertinent subjective and objective parameters for efficacy.
    - e) Identify pertinent subjective and objective parameters for toxicity/adverse effects.
  4. Educate patients and caregivers regarding the appropriate use of medications.
    - a) State the name of the drug, dose, route, frequency and duration.
    - b) Explain to the patient why the medication has been prescribed.
    - c) Explain appropriate administration regarding drug usage, dosage, timing, technique, and missed doses.
    - d) Explain expected response to therapy both subjectively and objectively.
    - e) Explain potential adverse effects and their management.
    - f) Explain potential drug interactions with the therapy as they apply to the specific patient.
    - g) Summarize information as needed.
  5. Evaluate the appropriateness of patient-specific therapy and modify therapy as needed.

- a) Determine if the regimen includes the correct drug, dose, route, frequency and duration based on drug-specific data (pharmacology, pharmacokinetics, pharmacodynamics).
- b) Determine if the regimen includes the correct drug, dose, route, frequency and duration based on patient-specific data (age, weight, renal function, hepatic function, history, signs and symptoms).
- c) Determine if the regimen includes the correct drug, dose, route, frequency and duration based on disease-specific data (pathophysiology, disease severity).
- d) Justification is provided to support the evaluation, selection of the most appropriate drug and is based on drug-, patient-, and disease-specific data.
- e) Justification for ruling out other therapies is provided and takes into account drug-, patient-, and disease-specific data.
- f) Therapeutic plan is modified as needed (discontinuing inappropriate or ineffective drugs, selecting the most appropriate drug).

#### **VI. Course Topics**

Topics to be covered include various ambulatory and acute care disease states that integrate the practice of therapeutics, kinetics, problem solving, and communication.

#### **VII. Instructional Methods and Activities**

Students will participate largely in active learning through group discussion and presentation of the synthesized and documented patient-specific care/treatment plan. Group discussions are conducted by students with faculty members serving as group facilitators. Presentations and group activities will be individualized based on weekly topics and can include, but are not limited to, video presentations of medical procedures, medical supply demonstrations, and case presentations. Students will analyze patient data, form hypotheses, and identify issues for further study. Research studies from the scientific literature will be reviewed to refine drug literature evaluation abilities.

Communication will also be assessed. Students will be required to turn in completed treatment plans that use published research and guidelines to support the recommendations of the team. Once the treatment plans are turned in, the students will be randomly selected to defend their recommendations. It is intended that each student will have several opportunities to be questioned during the case series in the class.

**VIII. Evaluation and Grade Assignment**

SOAP Notes (6 @ 20 pts each):

1. Organization/structure of the plan
2. Completeness of the content
3. Accuracy of the content
4. Completeness and accuracy of the plan

Case Presentations (2 @ 50 pts):

1. Development of quality questions
2. Effectively communicate
3. Effectively defend recommendations
4. Analyze and critique references

Quizzes (5 @ 20 pts each)

From outside readings specified by instructor

Additional Assignments:

1. Journal Club Activity (50 pts)
2. Peer Evaluation (6 @ 10 pts each)
3. Multi-Mini Case Day (MMCD) (50 pts.)

SOAP Notes	120 points
Case Presentations	100 points
Quizzes	100 points
Journal Club Activity	50 points
Peer Evaluation	60 points
MMCD	50 points
<b>Total</b>	<b>480 points</b>

Letter grades are determined as follows:

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

\*Additional points may be available at the discretion of the course coordinators.

\*Late submission of any assignment will result in a penalty, as specified in each activity description. Failure to submit a weekly peer evaluation will result in zero (0) points for that evaluation.

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.

**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 and Materials**

No single text is required. Students must use a variety of literature sources, including appropriate textbooks, journals, and credible online information sources (including primary

literature). Students must have adequate computer hardware for information retrieval and electronic communication.

**B. Attendance Policy**

1. Class attendance is regarded as an obligation and a privilege, and all students are expected to attend regularly and punctually all classes in which they are enrolled. Failure to do so may jeopardize students' scholastic standing and may lead to suspension from the University.
2. Any student who is not present for at least 75% of the scheduled class sessions in any course may receive a grade of "W" if this condition occurs prior to the last day to drop a course or a grade of "F" after that date.
3. Any University-related activity requiring an absence from class will count as an absence when determining if a student has attended 75% of class meetings.
4. Students are responsible for the effect absences have on all forms of evaluating course performance. Thus, the student is responsible for arranging the allowed make up of any missed work.

Students shall follow the ULM COP Excused Absence Policy. Please refer to official document for details. All excused absences must be validated by OSPA according to the policy timeline. The course coordinator is the only person who can grant an "excused absence". 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 this information to the faculty. 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**

A student missing a graded exercise (exam, quiz, in-class assignment, presentation, etc.) MUST contact the Course Coordinator prior to the graded exercise. If a student cannot contact the Course Coordinator prior to the graded exercise, they must contact the coordinator within 24 hours of the graded exercise. Provided this policy is followed and a validated excuse is presented, excused absences will be granted for those reasons outlined in the University catalog and College of Pharmacy (COP) Student Handbook. Absences outside of those covered in the University catalog and COP Student Handbook will be excused at the discretion of the Course Coordinator. Failure to attend a scheduled make-up will result in a zero (0) grade for that graded exercise. Make-ups will be prepared at the same or higher level than the original exercise. The format of the make-up may be written or oral. *The student must present documentation of a University excused absence to the course coordinator. Students missing an exercise due to a University approved excuse will take a make-up during the week of finals, or as determined by the course coordinator.*

- 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 Ethical and Professional Conduct ([https://www.ulm.edu/pharmacy/documents/ospa/codeofconduct\\_v20200406.pdf](https://www.ulm.edu/pharmacy/documents/ospa/codeofconduct_v20200406.pdf)).

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.

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 and assessments is a violation of the ULM College of Pharmacy's Code of Ethical and Professional Conduct and is prohibited.

**E. Course Evaluation Policy**

At a minimum, students are expected to complete an on-line course evaluation as well as any evaluation administered in class by the College of Pharmacy. In addition, individual feedback is encouraged throughout the course.

**F. COVID-19 Policy**

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-feet 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.

**G. 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 College's technical standards and policies concerning students with special needs. ULM student services, such as 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/>.

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](http://www.ulm.edu/titleix).

**H. Emergency Procedures**

Please review the emergency escape plan in the classrooms and hallways of the Bienville Building. Move quickly and orderly to the appropriate stairwell and exit the building. The meeting place for this class will be at the ULM College of Pharmacy sign on the lawn in the front of the Bienville building. Under no circumstances is the elevator to be used for emergency evacuation. Any student needing assistance should notify the professor immediately.

**I. Discipline/Course-specific Policies**

Students are responsible for all information on Moodle® and/or instructor websites. Students are expected to check these sources regularly to access class materials, required readings, assignments, and other information necessary for this course.

**Tentative Course Schedule**

(Instructors reserve the right to adjust class schedule as needed)

**PHRD 5067: Problems in Therapeutics**

**Location: B170**

<b>Week</b>	<b>Tuesday 3:00 – 4:15</b>	<b>Thursday 3:00 – 4:15</b>
(8/22 & 8/24)	Welcome and orientation <ul style="list-style-type: none"> <li>● Discussion of course description, objectives, and expectations</li> <li>● Provision of grading rubrics, etc.</li> <li>● Review of patient case presentation style</li> <li>● Literature resource scavenger hunt</li> </ul>	<ul style="list-style-type: none"> <li>● Dr. Hill Introductory case presentation</li> <li>● SOAP note discussion</li> </ul>
(8/29 & 8/31)	Case 1 Dr. Hill	Case 1 Presentation *Group SOAP due by 10:00 pm Peer Evaluation due on 9/1 at 10PM
(9/5 & 9/7)	Active Learning 1 Dr. Brady Quiz 1	Active Learning 1
(9/12 & 9/14)	Case 2 Dr. Brooks (Zoom?)	Case 2 Presentation *Group SOAP due by 10:00 pm

		Peer Evaluation due on 9/15 at 10PM
(9/19 & 9/21)*	Active Learning 2 Dr. Savage (ZOOM) Quiz 2	Active Learning 2
(9/26 & 9/28)	Case 3 Dr. Brady	Case 3 *Group SOAP note due by 10:00 pm Peer Evaluation due on 9/29 at 10PM
(10/3 & 10/5)	Active Learning 3 Dr. Hill Quiz 3	Active Learning 3
(10/10 & 10/12)	Active Learning 4 Dr. Andonie Quiz 5	Off (Fall break Thursday and Friday)
(10/17 & 10/19)	Case 4 Dr. Hill	Case 4 *Group SOAP note due by 10:00 pm Peer Evaluation due on 10/14 at 10PM
(10/24 & 10/26)	Journal Club Activity (Faculty JC demo) Dr. Donald and guest	Journal Club Activity (Speed dating Game/quiz 4) Dr. Donald, Dr. Hill, Dr Brooks?
(10/31 & 11/2)	Work on Journal Club Presentation (no class) Dr Donald will be in his office for questions!!	Journal Club Activity (Present) Dr Donald and Dr Hill
(11/7 & 11/9) *	Case 5 Dr. Andonie (ZOOM)	Case 5 *Group SOAP note due by 10:00 pm Peer Evaluation due on 10/30 at 10PM
(11/14 & 11/16) *	Case 6 Dr. Savage (ZOOM)	Case 6 *Group SOAP note due by 10:00 pm Peer Evaluation due on 11/17 at 10PM
(11/21 & 11/23)	MMCD -Dr Hill and Dr Brooks	<b>Turkey DAY!!</b>

11/28	<b>Course wrap-up/feedback</b> Dr. Hill	<b>Finals START</b>
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