Review of Integrated Pharmacotherapy
PHRD 6001
CRN# 64468

I. Contact Information

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Office Hours: By Appointment
Preferred Method of Communication: Email

II. Course Pre-requisites/Co-requisites
All required and elective Doctor of Pharmacy didactic course work with P4 standing.

III. Course Description
Pharmacy capstone course where students will demonstrate acquisition of pharmacy knowledge, skills and behaviors learned throughout the curriculum. This course is designed to provide an overview of key disease states and related drugs

1 credit hour, Credit/No Credit

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).

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.

3.5. 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.

4.4. 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
As a P4 capstone course, all ACPE Appendix 1 elements are assessed during this course through RxPrep.

V. Course Specific Objectives and Outcomes

At the conclusion of this course, students should be able to:
1. Demonstrate readiness for NAPLEX licensure examination through RxPrep
2. Demonstrate clinical pharmacy skills through Objective Structured Clinical Exams (OSCE’s)

VI. Course Topics

Refer to the Customized Study Plan at the end of this document.

VII. Instructional Methods and Activities

• Methods of instruction will consist of self-study with on-line quizzing, in-class lectures, and exams.

VIII. Evaluation and Grade Assignment

• Grades will be calculated as follows:
<table>
<thead>
<tr>
<th>Course Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>RxPrep 150-question Comprehensive Exam</td>
<td>50%</td>
</tr>
<tr>
<td>Test Bank Quizzes Average</td>
<td>20%</td>
</tr>
<tr>
<td>OSCE Exams Average</td>
<td>20%</td>
</tr>
<tr>
<td>Attendance at Mandatory Events (APPE Orientation, OSCE’s, RxPrep Exam, NAPLEX Review)</td>
<td>10%</td>
</tr>
</tbody>
</table>

- Student will be able to attempt the exam two (2) times with the highest score recorded for the course grade. Student must achieve a minimum score of 50%.
- All quizzes must be completed by the date of the second RxPrep exam (April 24, 2020) to count toward the quiz average. The quiz average is calculated using the last attempt of each quiz.
- Following the first exam, the student may review a strengths and weaknesses report with the Director of Student Success and may be referred to a faculty member with expertise in that area for remediation.
- Students must obtain a minimum grade of 75% on each OSCE exam.

**Grading Scale:**  
This course is designated as a credit/no-credit course. To obtain credit for the course, the student must achieve 70% of available points throughout the course.

**Student Success Policy:** [http://www.ulm.edu/pharmacy/currents.html](http://www.ulm.edu/pharmacy/currents.html)

**Remediation Policy:** [http://www.ulm.edu/pharmacy/currents.html](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/](http://www.ulm.edu/studentpolicy/)). Additional class policies include:

a. **Textbooks (required):**  
   - Required: RxPrep Course Book and online access must be purchased by June 1, 2019. RxPrep 2019-2020 Course Book will be released mid-June 2019.
     - 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 each exam at the date and time specified. If a student cannot attend an exam due to valid University excuse, he/she must speak directly with the course coordinator, as soon as possible. The course coordinator must be notified prior to an examination if a student misses an exam. The ULM SOP Excused Absence Policy must be followed. Please refer to the official document for details. In case of emergency, the course coordinator must be notified within 48 hours of the emergency. Failure to do so will result in a zero (0) grade for that exam. Make-up exams will be prepared at the same or higher level than the original exam. The format of the make-up exam may be written or oral. Failure to attend a scheduled make-up exam will result in a zero (0) grade for that exam. *Students missing an exam due to a University approved excuse will take the make-up exam during the week of finals, or as determined by the course coordinator.*

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/](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/currents.html](http://www.ulm.edu/pharmacy/currents.html)).

**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/](http://www.ulm.edu/studentpolicy/)). ULM student services, such as the Student Success Center ([http://ulm.edu/cass/](http://ulm.edu/cass/)), Counseling Center ([http://ulm.edu/counselingcenter/](http://ulm.edu/counselingcenter/)), and Student Health Services, is available at the following Student Services web site [http://ulm.edu/studentaffairs/](http://ulm.edu/studentaffairs/). Students with special needs requiring accommodations MUST follow the process described at [https://www.ulm.edu/pharmacy/documents/ospa/specialneeds.pdf](https://www.ulm.edu/pharmacy/documents/ospa/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.**

X. **Course Schedule - Tentative Course Schedule *subject to change at the discretion of the Course Coordinator***

<table>
<thead>
<tr>
<th>RxPrep Timeline</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Watch the “RxPrep High Score Pass on the NAPLEX” video (available on YouTube at <a href="https://www.youtube.com/watch?v=68-aSCKk3SY">https://www.youtube.com/watch?v=68-aSCKk3SY</a>)</td>
<td>Before June 1, 2019</td>
</tr>
<tr>
<td>2. Begin online videos and test banks</td>
<td>June 1, 2019</td>
</tr>
<tr>
<td>3. Updated Course Book will be released</td>
<td>Mid-June 2019</td>
</tr>
<tr>
<td>4. 2-Day live NAPLEX review course</td>
<td>May 6-7, 2020</td>
</tr>
</tbody>
</table>

**Class meeting dates and times:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Due Date/Time</th>
<th>Activity</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1-30, 2019</td>
<td>June 30, 2019 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>July 1 – 31, 2019</td>
<td>July 31, 2019 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>August 1 – 31, 2019</td>
<td>August 31, 2019 (11:50pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>September 1 – 30, 2019</td>
<td>September 30, 2019 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>October 1 – 31, 2019</td>
<td>October 31, 2019 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>November 1 - 30, 2019</td>
<td>November 31, 2019 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>December 1 – 31, 2019</td>
<td>December 31, 2019 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>January 1 – 31, 2020</td>
<td>January 31, 2020 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>Date Range</td>
<td>End Date</td>
<td>Activity Description</td>
<td>Staff Type</td>
</tr>
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</tr>
<tr>
<td>February 1 – 28, 2020</td>
<td>February 28, 2020 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>March 1 – 21, 2020</td>
<td>March 21, 2020 (11:59pm)</td>
<td>Completion of at least 10 RxPrep test banks</td>
<td>Online Activity</td>
</tr>
<tr>
<td>March 27, 2020</td>
<td>TBD</td>
<td>RxPrep 150-question Comprehensive Exam</td>
<td></td>
</tr>
<tr>
<td>April 24, 2020</td>
<td>TBD</td>
<td>RxPrep 150-question Comprehensive Exam</td>
<td></td>
</tr>
<tr>
<td>May 6-7, 2020</td>
<td>8:00am – 5:00pm</td>
<td>2-Day Live NAPLEX Review</td>
<td>RxPrep Staff</td>
</tr>
</tbody>
</table>
Creating Your Customized Study Plan

The goal is to master all of the RxPrep material before testing. A customized study plan is essential to your success.

This example 7-Month Study Plan requires mastery of an estimated 8 to 14 chapters per month; it may be lengthened or shortened based on individual time commitments. It is advised that calculations be completed before beginning clinical topics. The study plan was designed in blocks of approximately equal time commitment. It can be customized to align with learning objectives of APPE rotations by interchanging topics of the same color between blocks or interchanging entire blocks (all green, yellow and red topics). Customization of the study plan is illustrated in the examples below.

*Topics highlighted in teal are not expected to have significant changes this year so we recommend you start with these topics.

<table>
<thead>
<tr>
<th>BLOCK 1</th>
<th>BLOCK 2</th>
<th>BLOCK 3</th>
<th>BLOCK 4</th>
<th>BLOCK 5</th>
<th>BLOCK 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculations I</td>
<td>Infectious diseases IV</td>
<td>Cystic fibrosis</td>
<td>Migraine</td>
<td>Pulmonary arterial hypertension</td>
<td>Stroke</td>
</tr>
<tr>
<td>Ischemic heart disease</td>
<td>Handling hazardous drugs</td>
<td>Thyroid disorders</td>
<td>Gout</td>
<td>Allergic rhinitis, cough &amp; cold</td>
<td>Constipation &amp; diarrhea</td>
</tr>
<tr>
<td>Overactive bladder</td>
<td>Drug references</td>
<td></td>
<td>Pharmacogenomics</td>
<td>COPD</td>
<td>Sexual dysfunction</td>
</tr>
<tr>
<td>Glaucoma, ophthalmics &amp; otics</td>
<td></td>
<td></td>
<td>Chemical structures</td>
<td>Tobacco cessation</td>
<td>Benign prostatic hypertrophy</td>
</tr>
<tr>
<td>Motion sickness</td>
<td></td>
<td></td>
<td>Drug formulations</td>
<td>Emergency preparedness</td>
<td>Anemia</td>
</tr>
<tr>
<td>Weight loss</td>
<td></td>
<td></td>
<td></td>
<td>Drug use in pregnancy &amp; lactation</td>
<td>Sickle cell disease</td>
</tr>
<tr>
<td>Drug allergies</td>
<td></td>
<td></td>
<td></td>
<td>Pediatric conditions</td>
<td>Bipolar disorder</td>
</tr>
<tr>
<td>Interpreting questions from cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GERD &amp; PUD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inflammatory bowel disease</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Asthma</td>
<td>Depression</td>
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<td>Critical care</td>
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<td>Immunizations</td>
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<td></td>
<td>HIV</td>
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<td></td>
<td></td>
<td>Oncology I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Oncology II</td>
</tr>
</tbody>
</table>

Estimated Topic Completion Time

- **0.5-1.5 hours per Topic (~1 weekday night for an APPE student)***
- **1.5-3 hours per Topic (~1-2 weekday nights for an APPE student)***
- **> 3 hours per Topic (~2-5 weekday nights or 1-2 weekend days for an APPE student)***
**Example 1: Preparing for an inpatient hospital rotation**

Jessica is starting her first APPE rotation in a hospital setting. She will be preparing sterile products. She chooses to complete calculations during her first week to make sure she has good foundational knowledge. Tuesdays are expected to be busy days because she has normal rotation duties and grand rounds. She works every other weekend at a local pharmacy. She chooses to complete a medium size yellow topic on the weekend, to make the weekdays less stressful.

<table>
<thead>
<tr>
<th>BLOCK 1</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Calc I</td>
<td>Calc II</td>
<td>X</td>
<td>Calc II</td>
<td>Calc II</td>
<td>Calc II</td>
<td>X</td>
</tr>
<tr>
<td>Week 2</td>
<td>X</td>
<td>ACS</td>
<td>X</td>
<td>ACS</td>
<td>CHF</td>
<td>CHF</td>
<td>Anticoag</td>
</tr>
<tr>
<td>Week 3</td>
<td>Arrhythmias</td>
<td>Interpreting patient cases</td>
<td>X</td>
<td>Drug allergies</td>
<td>Ischemic heart</td>
<td>Glaucoma</td>
<td>X</td>
</tr>
<tr>
<td>Week 4</td>
<td>X</td>
<td>Motion sickness</td>
<td>X</td>
<td>Overactive bladder</td>
<td>Weight loss</td>
<td>Common skin</td>
<td></td>
</tr>
</tbody>
</table>

**Example 2: Preparing for an inpatient clinical rotation**

Jessica has completed introductory rotations and is moving on to a specialty rotation in emergency medicine. She plans to complete the critical care and emergency preparedness topics and test banks prior to starting the rotation, so she selected block 5 topics for this month. Her preceptor has assigned her a presentation on seizures, so she is completing epilepsy/seizures instead of HIV. She continues to work every other weekend.

<table>
<thead>
<tr>
<th>BLOCK 5</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>X</td>
<td>Emergency</td>
<td>Critical care</td>
<td>Critical care</td>
<td>COPD</td>
<td>Tobacco cessation</td>
<td>Epilepsy</td>
</tr>
<tr>
<td>Week 2</td>
<td>Epilepsy</td>
<td>Asthma</td>
<td>Asthma</td>
<td>COPD</td>
<td>Tobacco cessation</td>
<td>Drug use in pregnancy</td>
<td>X</td>
</tr>
<tr>
<td>Week 3</td>
<td>X</td>
<td>Pediatric conditions</td>
<td>Allergic rhinitis</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 4</td>
<td>Immunizations</td>
<td>Travelers</td>
<td>Pulm arterial HTN</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Topic Bank Legend**

- 0.5 - 1.5 hours (~1 weekday night for an APPE student)
- 1.5 - 3 hours (~1-2 weekday nights for an APPE student)
- > 3 hours (~2-5 weekday nights or 1-2 weekend days for an APPE student)
What Now? Start Studying!

Follow your customized study plan and master the material in each chapter. Adjust your study plan if topics take longer than you expected. Approach the chapters as described below.

**CALCULATIONS CHAPTERS**
Review and complete practice problems in Course Book (Includes Calculations I and II, and math in Biostatistics and Pharmacokinetics chapters)

**CLINICAL CHAPTERS**
Review essential information in Course Book (includes bolded drugs, underlined text, study tips and key drug boxes)

Determine for each chapter if you are skilled or need review.

- **Calculations:** You are skilled if you know formulas and complete problems without difficulty.
- **Clinical:** You are skilled if you feel that you know essential information well.

**SKILLED**

- Proceed to test banks (Supplemental test banks are optional)

**NEED REVIEW**

- Review video lectures. (Online Course access required)

Calculations

- Practice at least 1 hour/day and increase on days off.
- When scores are > 80%, turn off feedback mode and focus on timing.
  Goal: 50 questions in 75 minutes.
- Repeat until scores in all test banks are 100%, then cut back to 1 hour of practice per week.

Clinical

- Score ≥ 70%
  - Make notecards for missed questions.
- Score < 70%
  - Review chapter and video lecture/s. (Online Course access required)
  - Make notecards for missed questions.

Every day review a stack of notecards. Explain the answer aloud in your own words. Once the answer is explained easily, place the card into a "done" pile. If not, place it back in the box and review it again.

Two weeks prior to your scheduled NAPLEX, take the 2018 RxPrep Practice Exam (without notes, with feedback mode off, and timed for 3 hours and 30 minutes).

You are ready to test when

- Noteboard box is empty.
- Math is completed quickly and accurately. Formulas are memorized.
- Score on 2018 RxPrep Practice Exam is ≥ 80%