

PHRD 4074 – CRN 41571 – Endocrinology Module

**I. Contact Information**

**\*Preferred method(s) of communication**

**Course Coordinators**

Yong-Yu Liu, Ph.D.

Associate Professor, Basic Pharmaceutical Sciences

Bienville #368

318-342-1709

[yliu@ulm.edu](mailto:yliu@ulm.edu)

Office hours: M-F: 8-11 am

Laurel Sampognaro, Pharm.D.

Associate Professor, Clinical Sciences

\*Bienville #119

318-342-1721

\*[landrews@ulm.edu](mailto:landrews@ulm.edu)

Office hours: Tu & W: 2-4 pm; Th: 9-11 am & 2-4 pm; Fri: 8-10 am

**Course Instructors**

Karen Briski, Ph.D.

Professor and Dept. Head, Basic Pharmaceutical Sciences

\*Bienville #356

318-342-3283

[briski@ulm.edu](mailto:briski@ulm.edu)

Office hours: M-F: 10 am-2 pm

Khalid El Sayed, Ph.D.

Professor, Basic Pharmaceutical Sciences

Bienville #324

318-342-1725

\*[elsayed@ulm.edu](mailto:elsayed@ulm.edu)

Office hours: M-Th: 10 am-1 pm

Liz Lafitte, Pharm.D.

Assistant Professor, Clinical Sciences

Shreveport #112

318-342-1819

\*[lafitte@ulm.edu](mailto:lafitte@ulm.edu)

Office hours: M-F: 1-3 pm

Paul Sylvester, Ph.D.

Professor, Basic Pharmaceutical Sciences

Bienville #342

318-342-1958

\*[sylvester@ulm.edu](mailto:sylvester@ulm.edu)

Office hours: M-Th: 11am -1pm and F: 8-10 am

Jamie Terrell, Pharm.D.  
Associate Professor, Clinical Sciences  
Shreveport #114  
318-342-1825  
[\\*terrell@ulm.edu](mailto:terrell@ulm.edu)

Office hours: Tu, W, Th, F: 9-11 am; Th 1-3 pm

## II. Course Prerequisites/Corequisites

Credit or registration in PHRD 4027 and PHRD 4035

## III. Course Description

Principles of pathophysiology, medicinal chemistry, clinical pharmacokinetics and pharmacotherapy (including both prescription and non-prescription medications) as they apply to endocrine drug therapy management.

## IV. Curricular 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.

### 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.

## V. Course Specific Objectives and Outcomes

- At the conclusion of this course, students should be able to:
  - Demonstrate knowledge of the medicinal chemistry, pharmacological mechanism of action and related pharmaceutical topics of selected medications and medication classes used to treat endocrine disorders. (1.1)
  - Identify appropriate non-pharmacologic therapy, based upon patient- and disease-specific information. (1.1, 2.1, 3.1)
  - Develop appropriate pharmacotherapeutic regimens based upon patient- and disease-specific information. (1.1, 2.1, 3.1)
  - Develop a plan for monitoring the pharmacotherapeutic regimen for efficacy, toxicity, and adverse effects. (1.1, 2.1, 3.1)
  - Develop a plan for educating the patient regarding drug therapy. (1.1, 2.1, 3.1)
  - Review a patient-specific drug therapy regimen and make adjustments as necessary. (1.1, 2.1, 3.1)

- Additional subject-area-associated objectives may be posted separately.

## VI. Course Topics

Pituitary Hormones and Disorders, Thyroid Hormones and Disorders, Adrenal Hormones and Disorders, Reproductive Hormones, Glucose Homeostasis, Diabetes Mellitus (Pharmacology, Medicinal and Pharmaceutical Chemistry, and Therapeutics)

## VII. Instructional Methods and Activities

Instructional methods may include: traditional lectures, distance learning, in-class discussion of patient cases, small group discussions, problem-based learning, case-based learning, and individual projects or assignments.

## VIII. Evaluation and Grade Assignment

- There will be four exams, for a total of 400 exam points for the course. The exams will be broken down by disease state, and the points allotted accordingly (at 16 exam points per class period), based upon the number of class periods for that disease state. (See the Course Schedule below.)
- Quizzes/assignments may be given, as deemed necessary by each faculty member. The points available from these quizzes and assignments will be added to the denominator for the total number of points available from the course, and course grade determined accordingly based on percentages, as given below. Quizzes/assignments will not exceed 5% of the final grade for the course.
- Exam dates are scheduled in the course syllabus and will only be changed in the event of University closure.
- Exams may be multiple-choice, fill-in-the-blank, short-answer, case- or scenario-based discussion, essay, or any other format deemed necessary by the faculty and course coordinators.
- Normal laboratory values will be provided for all questions, unless otherwise specified during class. Lab values that are specific to a particular disease state will generally not be provided.
- Information acquired from previous lectures in the course, and from other courses in the professional pharmacy curriculum, may likely be needed in preparing for these examinations. Guidance in this regard will be provided whenever reasonably possible.
- Exams will cover material (readings, outside assignments) not covered in class.
- Use of programmable calculators or cellular phones will not be allowed during quizzes or exams.
- In the event that a question is eliminated from an exam after it has been finalized in ExamSoft, the exam will be graded based on the remaining number of questions, and the exam points contribution to the final course grade adjusted according to the revised number of points (i.e., the denominator in the final course grade calculation will be reduced).
- Course grades will be based strictly upon the percentages given below. There will be no curving or adjustments of grades.
- The use of programmable calculators and electronic devices capable of storing, receiving or transmitting data are prohibited during an exam or quiz unless expressly authorized by the course instructor. Such devices must be turned off and left with your belongings in the front of the room.

### Reviewing exams

- Exams will NOT be returned to the student. Faculty members will review the exam scores and question statistics, and will discuss amongst themselves any discrepancies. One faculty member will be designated as the primary contact person for each exam, and students will be notified of who this faculty member is. Students will have **2 weeks** after exam scores are posted to contact the faculty member who is supervising that review to set up a time to review their exams.
- Problems or issues with a question should be first directed, via e-mail, to its author. The course coordinators should be copied on this email, but it is the responsibility of the question's author to address the concern(s). (If the student is unsure which faculty member wrote a specific question, he or she may of course ask the course coordinator.) The student is expected to include references or rationale to support their challenge of the question in writing. The challenge will be reviewed by the question's author, and his or her decision will be

shared with the course coordinators. Discussion of a dispute will occur **only** after a written query is submitted, with reasoning for the challenge. Challenges of test questions will only be considered *within 2 weeks* of when the test scores are posted, or *within 1 week* of the time that the score for the final exam is posted.

#### **Grading Scale:**

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

#### **Early Intervention Policy**

Students scoring <70% on any exam and an overall exam average <70% (excludes quizzes, assignments, bonus, etc.) will be required to submit to the coordinator written, narrative responses to select lecture objectives that will be provided within 24 hours of the posting of their exam grade to Moodle. These objectives will be in the form of a Moodle assignment and represent unit--- or lecture---level objectives to be tested upon in the next scheduled course exam.

Written responses must be submitted no later than one calendar week before the next scheduled exam. Responses must be written in complete sentences and may not be copied or pasted from any source, including class notes, treatment guidelines, textbooks, or any internet site. Submissions found to contain responses that have not been written in a student's own words will be considered a failure to submit.

In addition, students will be required to review each failed exam's ExamSoft---generated missed item report with the course coordinator or instructor responsible for each section of material. The discussion should include the student's reasoning for the incorrect answer as well as the reason for the correct answer.

Failure to submit this required assignment will result in ineligibility to remediate.

#### **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:

##### **Textbooks (required):**

1. DiPiro J, Talbert R, Yee G, Wells B, Posey M. *Pharmacotherapy: A Pathophysiologic Approach*. 9th ed, McGraw-Hill, Inc., 2014. ISBN 9780071800532
2. Alldredge B, Corelli R, Ernst M, Guglielmo J, Jacobson P, Kradjan W, Williams B. *Applied Therapeutics: The Clinical Use of Drugs*. 10<sup>th</sup> ed, Lippincott Williams & Wilkins, 2013. ISBN 9781609137137
3. Brunton LL, Chabner BA, Knollmann BC, eds. *Goodman and Gilman's, The Pharmacological Basis of Therapeutics*, 12<sup>th</sup> ed., McGraw-Hill, 2011. ISBN 9780071624428
4. Katzung BG, Trevor AJ, eds. *Basic and Clinical Pharmacology*, 13<sup>th</sup> ed., McGraw-Hill, 2015. ISBN 9780071825054
5. Lemke TL, Williams DA, eds. *Foye's Principles of Medicinal Chemistry*, 7<sup>th</sup> ed., Lippincott Williams & Wilkins, 2013. ISBN 9781609133450
6. Additional REQUIRED and/or recommended reading materials may be posted on Moodle by course faculty.

##### **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. The University attendance policy will be followed during this course and can be located here:

[http://catalog.ulm.edu/content.php?catoid=23&navoid=2875&hl=attendance&returnto=search#Class\\_Attendance\\_Regulations\\_Excused\\_Absences](http://catalog.ulm.edu/content.php?catoid=23&navoid=2875&hl=attendance&returnto=search#Class_Attendance_Regulations_Excused_Absences)

Students shall submit excuses for all class absences to [the designated Course Coordinator] within three class days after returning to classes, and if a grade-earning opportunity occurs during the affected class, also to the faculty member conducting the missed class. Course faculty shall accept an official University excuse (see below).

Please note that signing an attendance roster on behalf of an absent student, or falsely representing attendance by any other means, is a violation of the ULM academic dishonesty policy and, potentially, federal law.

With the following exceptions, the designated Course Coordinator is to determine whether absences are excused or unexcused:

1. Absences arising from authorized trips away from the University or from special duties at the University shall be excused.
2. Absences arising from a student's confinement in a hospital or other in-patient facility or doctor's excused absences shall be excused. Students are responsible for providing documentation of any such events to the faculty, who will verify the authenticity and acceptability of this information.
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. Students are responsible for providing documentation of any such events to the faculty, who will verify the authenticity and acceptability of this information.

#### **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 a valid University excuse (see above), he/she must speak directly with a Course Coordinator as soon as practically possible. If a student finds in advance of an exam that (s)he will miss it for one of the above-listed reasons, the course coordinator must, if at all possible, be notified prior to the examination. If a make-up exam is authorized, subsequent failure to attend a scheduled make-up exam will result in a zero (0) grade for that exam. Make-up exams will be prepared at the same or higher level as the original exam. The format of the make-up exam may be written or oral. *Students missing an exam due to a University-approved excuse will take the make-up exam during the week of final examinations, or as determined by the course coordinators in conjunction with the faculty providing test content for the affected exam.*

#### **Academic Integrity:**

Faculty and students must observe the ULM published policy on Academic Dishonesty (see 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>

Cheating, plagiarism, or other inappropriate conduct will not be tolerated. Academic cheating includes, but is not limited to, the accomplishment or attempted accomplishment of the following:

- Copying or obtaining information from another student's test paper.\*
- Using, during a test, materials not authorized by the person giving the test.\*\*
- Collaborating, conspiring, or cooperating during an in-class or take-home test with any other person by giving or receiving information without authorization.
- Stealing, buying, or otherwise obtaining all or part of an unadministered test.
- Selling or giving away all or part of an unadministered test or any information concerning specific questions and items on an unadministered test.
- Requesting, bribing, blackmailing, or in any other way causing any other person to obtain an unadministered test or information about an unadministered test or a test in the process of being administered.
- Substituting for another student, or permitting any other person to substitute for oneself to take a test.

- Submitting as one's own, in fulfillment of academic requirements, any work prepared totally or in part by another person.
- Any selling, giving, or otherwise supplying to another student any work for use in fulfilling an academic requirement.
- Submitting artificially produced data or information in the place of descriptive, experimental, or survey results.
- Any other devious means of securing an unearned grade.
- Using, during a test, any electronic storage device, wireless and/or internet-based technology, or any other means that provides information not authorized for use during the testing period.

\*A student looking on another student's paper is considered cheating.

\*\*The presence on one's person (or in close proximity thereto) of a condensation of test information (i.e., any information which could reasonably be regarded as a "cheat sheet") will be considered adequate evidence to establish cheating.

Plagiarism is the use of any other person's work (such work need not be copyrighted) and the unacknowledged incorporation of that work in one's own work offered for credit.

Academic dishonesty (as detailed above) will result in a referral to the School of Pharmacy's Committee on Ethical and Professional Standards, with a recommendation for a grade of "F" for the course and expulsion from the School.

#### **Course Evaluation Policy:**

At a minimum, students are expected to complete the on-line course evaluation. It is requested that students also complete the School of Pharmacy course and instructor evaluations, including providing comments.

#### **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 School's technical standards and policies concerning students with special needs (<http://www.ulm.edu/studentpolicy/studentpolicy.pdf>; see also below).

Information concerning other student services, including the ULM Student Success Center (<http://ulm.edu/cass/>), ULM Counseling Center (<http://ulm.edu/counselingcenter/>), and ULM Student Health Services, is available at the following ULM 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 as construed 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).

**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 Bldg. and Broadmoor Blvd. Please meet there, and do not leave the premises without first obtaining permission. 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.

**Communication with Coordinators and Course Faculty:**

Open and frequent communication via email, phone, or face-to-face is highly encouraged. Your comments and suggestions can and will be used to improve this and future offerings of this course.

If you feel that you are having problems in the course, please approach and discuss with the appropriate faculty member(s) as early as possible, to avoid complications later in the course that could impact your understanding of the material or your grade in the course.

Per School of Pharmacy policy, concerns, comments, and suggestions should be discussed/submitted first to the individual faculty member to which they pertain (or to the Course Coordinators, if the concern is with the course as a whole). If not satisfactorily addressed, then that instructor's Department Head should be contacted, followed by the Associate Dean of Academic Affairs. Following this communication "chain" is important to allow for appropriate resolution of issues and continuous quality improvement, and to maintain the desired professional relationship between students and faculty.

This is an integrated course covering a number of topics from different viewpoints. If two (or more) faculty members present what appears to be conflicting information, it is important to question that information and discuss it with the faculty members(s) involved. The appropriate time to do this is prior to the exam covering that material.

**Upon necessity and in accordance with the University and School policies and procedures, the Course Coordinators reserve the right to adjust the syllabus or schedule in reasonable fashion and without compromising course integrity.**

X. Tentative Course Schedule

Day	Date	PHRD 4074: Endocrinology Module Bienville 202 Tuesday, Thursday 1:00 – 2:15 pm		Pts on Exam/ Due Date
		Topic	Instructor	
Tu	8/22	Prolactin, Oxytocin - Pharmacology	Briski	16 points/Sept 7
Th	8/24	Growth Hormone – Pharmacology	Sylvester	16 points/Sept 7
Tu	8/29	Prolactin, Growth Hormone – Therapeutics	Lafitte	16 points/Sept 7
Th	8/31	Adrenal – Pharmacology	Liu	16 points/Sept 7
Tu	9/05	Adrenal – Medicinal Chemistry	El Sayed	16 points/Sept 7
Th	9/07	Adrenal – Therapeutics	Lafitte	
Tu	9/12	Adrenal – Case Studies	Lafitte	32 points/Sept 7
Th	9/14	Reproductive – Pharmacology	Liu	
Tu	9/19	Reproductive – Pharmacology	Liu	
<b>Th</b>	<b>9/21</b>	<b>Exam I (112 points)</b>		
Tu	9/26	Reproductive – Pharmacology	Liu	48 points/ Oct 5
Th	9/28	Reproductive – Medicinal Chemistry	El Sayed	16 points/ Oct 5
Tu	10/3	Glucose/Anti-hyperglycemic agents – Pharmacology	Sylvester	
Th	10/5	Glucose/Anti-hyperglycemic agents – Pharmacology	Sylvester	
Tu	10/10	Glucose/Anti-hyperglycemic agents – Pharmacology	Sylvester	48 points/Oct 5
<b>Th</b>	<b>10/12</b>	<b>Exam II (112 points)</b>		
Tu	10/17	Glucose/Anti-hyperglycemic agents – Medicinal Chemistry	El Sayed	16 points/Nov 7
Th	10/19	FALL HOLIDAY		
Tu	10/24	Diabetes Therapeutics	Terrell	
Th	10/26	Diabetes Therapeutics	Terrell	
Tu	10/31	Diabetes Therapeutics	Terrell	
Th	11/02	Diabetes Therapeutics	Terrell	
Tu	11/07	Diabetes Case studies	Terrell	
Th	11/09	Diabetes Complications	Terrell	96 points/Nov 7
Tu	11/14	Diabetes Complications	Lafitte	16 points/Nov 27
<b>Th</b>	<b>11/16</b>	<b>Exam III (112 points)</b>		
Tu	11/21	Thyroid – Pharmacology	Sylvester	16 points/Nov 27
Th	11/23	THANKSGIVING HOLIDAY		
Tu	11/28	Thyroid – Therapeutics	Sampognaro	
Th	11/30	Thyroid – Case studies	Sampognaro	32 points/Nov 27
	12/4- 12/8 (TBA)	<b>Exam IV (64 points)</b>		