# Therapeutics 7 PHRD 5039 CRN# 64548

#### I. Contact Information

#### **Course Coordinator:**

Name: Michelle Zagar, Pharm.D., M.Ed.

Phone: 318-342-3173 Email: zagar@ulm.edu

Office Location: Bienville 113

Office Hours: Monday-Thursday 1:30-4 pm, or by appointment Preferred Method of Communication: email or office hours

#### **Course Instructors:**

Name: Nektarios Barabutis, Ph.D.

Phone: 318-342-1460 Email: barabutis@ulm.edu Office Location: Bienville 386

Office Hours: Monday-Thursday 2-4 pm, Friday 10 am - 12 pm

Preferred Method of Communication: email

Name: Jessica Brady, Pharm.D., BCPS

Phone: 318-342-1697 Email: brady@ulm.edu Office Location: Bienville 115

Office Hours: Monday-Thursday 1-4 pm

Preferred Method of Communication: email or office hours

Name: Karen Briski. Ph.D.

Phone: 318-342-3283 Email: briski@ulm.edu

Office Location: Bienville 356

Office Hours: Monday-Thursday 10:00 am - noon Preferred Method of Communication: email

Name: Michael Cockerham, Pharm.D.

Phone: 318-342-3171 Email: cockerham@ulm.edu

Office Location: Shreveport/Monroe, LA

Office Hours: Monday 9–11 am, or by appointment

Preferred Method of Communication: email

Name: Khalid El Saved, Ph.D.

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Office Hours: Monday-Thursday 2-4 pm Preferred Method of Communication: email

Name: Stephen Hill, Pharm.D.

Phone: 318-342-1730 Email: shill@ulm.edu

Office Location: Bienville 117

Office Hours: Monday-Thursday 1-4 pm, Friday by appt.

Preferred Method of Communication: email

Name: Alexis E. Horace, Pharm.D., BCACP, AAHIVP

Phone: 318-342-6601 Email: horace@ulm.edu

Office Location: New Orleans, LA

Office Hours: Tuesday, Wednesday, Thursday 2-4 pm

Preferred Method of Communication: email

Name: Hilary Tice, Pharm.D., BCPS

Phone: 318-342-1818 Email: tice@ulm.edu

Office Location: Shreveport, LA

Office Hours: Monday-Thursday 1-3:30 pm or by appointment

Preferred Method of Communication: Zoom or email

# Name: Jamie Terrell, Pharm.D.

Phone: 318-342-1825 Email: terrell@ulm.edu

Office Location: Shreveport, LA Office Hours: M-F 9-11am

Preferred Method of Communication: email

# II. Course Pre-requisites/Co-requisites

Pre-requisites: PHRD 4056, PHRD 5014

# **III.** Course Description

**4 cr.** Therapeutics VII (Bone & Joint/Dermatology/Eyes/Special Populations). Principles of pathophysiology, pharmacology, medicinal chemistry, clinical pharmacokinetics and pharmacotherapy (including both prescription and non-prescription medications where applicable) as they apply to drug therapy management of disease.

## 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).
- **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.
- **2.4. Population-based care (Provider)** Describe how *population-based care* influences *patient-centered care* and influences the development of practice guidelines and evidence-based best practices.

# **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.
- **3.2. Educator (Educator)** Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.
- **3.3. Patient Advocacy (Advocate) -** Assure that patients' best interests are represented.
- **3.4. Interprofessional collaboration (Collaborator) –** Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.
- **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.

# **ACPE APPENDIX 1 Required Elements**

#### **Biomedical Sciences**

- Biochemistry Structure, properties, biological functions, applicable kinetics, and metabolic fate of
  macromolecules essential to life (proteins, lipids, carbohydrates, and nucleic acids). Application of
  these concepts to identify endogenous targets for drug therapy and rational drug design strategies.
- Human Physiology Homeostatic function and normal response reactions across the lifespan of non-diseased human cells, organs, and systems.
- Pathology/Pathophysiology Basic principles, mechanisms, functional changes and metabolic sequelae of human disease impacting cells, organs, and systems.

## **Pharmaceutical Sciences**

- Clinical Chemistry Application of clinical laboratory data to disease state management, including screening, diagnosis, progression, and treatment evaluation.
- Medicinal Chemistry Chemical basis of drug action and behavior in vivo and in vitro, with an
  emphasis on pharmacophore recognition and the application of physicochemical properties,
  structure-activity relationships, intermolecular drug-receptor interactions and metabolism to
  therapeutic decision-making.
- 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.
- Pharmacogenomics/genetics Genetic basis for disease and individual differences in metabolizing enzymes, transporters, and other biochemicals impacting drug disposition and action that underpin the practice of personalized medicine.
- Pharmacokinetics Mathematical determination of the rate of drug movement from one therapeutic or physiologic compartment to another. Application of physicochemical and kinetic principles and parameters to therapeutically important issues, such as drug delivery, disposition, therapeutic effectiveness, and beneficial or adverse interactions in general and specific populations.
- Pharmacology Pharmacodynamics, mechanisms of therapeutic and adverse drug actions and interactions, lifespan-dependent variations in physiology or biochemistry that impact drug action and effectiveness, and application of these principles to therapeutic decision-making.
- Toxicology Pharmacodynamics, mechanisms, prevention, and treatment of the toxic effects of drugs and poisons, including poisons associated with bioterrorism.

# Social/Administrative/Behavioral Sciences

- Cultural Awareness Exploration of the potential impact of cultural values, beliefs, and practices on patient care outcomes.
- 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.
- Pharmacoeconomics Application of economic principles and theories to the provision of costeffective pharmacy products and services that optimize patient-care outcomes, particularly in situations where healthcare resources are limited.
- Pharmacoepidemiology Cause-and-effect patterns of health and disease in large populations that advance safe and effective drug use and positive care outcomes within those populations.

## **Clinical Sciences**

- Clinical Pharmacokinetics Application of basic pharmacokinetic principles and mathematical models to calculate safe and effective doses of drugs for individual patients, and adjust therapy as appropriate through the monitoring of drug concentration in biological fluids.
- 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.
- 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.
- 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.
- 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.
- Public Health Exploration of population health management strategies, national and community-based public health programs, and implementation of activities that advance public health and wellness, as well as provide an avenue through which students earn certificates in immunization delivery and other public health-focused skills.
- 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 of the medicinal chemistry, pharmacological mechanism of action and related pharmaceutical topics of selected medications and medication classes used to treat eye, ear, nose, throat, and dermatological disorders. (1.1)
- Recommend appropriate non-pharmacologic therapy based upon patient- and disease- specific information. (1.1, 2.1, 3.1)
- Develop appropriate pharmacotherapeutic regimens based upon patient-, disease-, and drug 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 patients and caregivers regarding the appropriate use, safety, and efficacy of medications. (1.1, 2.1, 3.1)
- Evaluate the appropriateness of patient-specific therapy and modify therapy as needed. (1.1, 2.1, 3.1)

# VI. Course Topics

Pharmacology, medicinal chemistry and therapeutics related to bone and joint disorders, dermatology, diseases of the eye, pediatrics, women's health, transgender care, and geriatrics.

## 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. Quizzes or other graded in-class exercises may also be administered. Technology may include distance education by Zoom or similar software, electronic drawing boards, Poll Everywhere, and Moodle.

# VIII. Evaluation and Grade Assignment

• There will be 5 exams total. The final exam will not be comprehensive. Each 50-minute class period, excluding case and guest speaker days, will be represented by 8 points on the exam.

**Exam 1:** 80 points

Exam 2: 64 points

Exam 3: 80 points

Exam 4: 80 points

Exam 5: 80 points

Quizzes/assignments: TBD\*\*
Total points for the course: 384\*\*

\*\* Quizzes &/or assignments may be given as deemed necessary by each faculty member. The points available from these quizzes and assignments will be added into the denominator for the total number of points available for the course, and the course grade determined accordingly. Quizzes/assignments will not exceed 5% of the final grade for the course. Grades for exams and assignments will be posted within 2 weeks of completion.

- 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 members and Course Coordinators.
- Normal laboratory values will be provided for all questions, unless otherwise specified during class. Lab values that are specific to a disease state will generally not be provided.
- Information acquired from previous portions of the course and from other courses in the professional pharmacy curriculum may be needed in preparing for these examinations.
- Exams may cover material (readings, outside assignments) not covered in class.
- Exams will NOT be returned to the student. All instructors will have copies of the exam and students' results, and students may view their exam results (incl. right/wrong) in instructors' offices, at times convenient for all involved. At this time, they may also discuss exam questions with the instructors who wrote them; however, any official "challenges" of questions must be done in writing. (See below)
- Exams will be issued using Exam Soft; all students are required to download the exams prior to the date of the scheduled exam. If a student cannot take the exam on the scheduled date the student must reverse download the exam to Exam Soft. Under no circumstances should a student open an examination, except during the scheduled time and at the scheduled location. Scratch paper will be issued on the day of the exam and all students are required to sign the scratch paper and return it to the exam proctor prior to leaving the room. No other paper items will be allowed during the exam unless supplied by the faculty

administering the exam. All exams must be uploaded before leaving the classroom; in the event of a power outage or loss of Wi-Fi connection all students are required to upload the exam at the earliest possible reconnection time, however proof of exam closeout will be required prior to leaving the classroom.

- Students wishing to review their exams with the course coordinators or with a specific faculty member must do so within 2 weeks of when the exam scores are posted, or within 1 week of the time that the score for the final exam is posted.
- Problems or issues with a question should be first directed, via e-mail, to the person who wrote it. The course coordinator(s) 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, then he or she may ask the course coordinator. In the written challenge, the student is expected to include references or rationale to support their challenge of the question. The challenge will be reviewed by the faculty member, and his or her decision will be shared with the course coordinator(s). Discussion of a dispute will occur only after the written query is submitted. Challenges of test questions for the first 4 exams will only be considered within 2 weeks of when the test scores are posted. For the final examination, challenges of test questions will only be considered within 1 week of the time that the scores are posted.
- In the event that there is an issue with a particular test question, adjustments to scores will be made based on discussions between the test question writer and the course coordinator.
- 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.
- 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.

# **Grading Scale:**

89.5 - 100% A 79.5 - 89.49% B 69.5 - 79.49% C 59.5 - 69.49% D  $\leq 59.49\%$  F

Student Success Policy: http://www.ulm.edu/pharmacy/currents.html

**Remediation Policy**: 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/). Additional class policies include:

## a. Textbooks (required):

- 1. Chisholm-Burns M, Schwinghammer TL, Wells BG, Malone PM, Kolesar JM, DiPiro JT, eds. *Pharmacotherapy: Principles and Practice*. 4th ed, New York, McGraw-Hill, Inc., 2010. ISBN 9780071835022 (available via AccessPharmacy)
- 2. Brunton LL, Lazo JS, Parker KL, eds. *Goodman and Gilman's, The Pharmacological Basis of Therapeutics*, 13<sup>th</sup> ed, McGraw-Hill, 2006. ISBN 9781259584732 (available via AccessPharmacy)
- 3. Lemke, Williams, Roche, Zito, eds. *Foyes Principles of Medicinal Chemistry* 7<sup>th</sup> ed., Walters Kluwer/Lippincott Williams & Wilkins, 2013. ISBN 9781609133450. (available via our LW&W Health Library collection)
- 4. 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 College 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 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. Mental and/or Physical Health Leave of Absence: A student who feels he/she needs a Leave of Absence should make an appointment with the Assistant Dean of Student Affairs and Development or the Director of Student Success as soon as the student recognizes this need. The leave of absence will not be considered by the Course Coordinator(s) for excuse until after the Assistant Dean of Student Affairs and Development and/or the Director of Student Success has been contacted. Do not directly contact the course coordinator(s) until after speaking with the Assistant Dean of Student Affairs and Development or the Director of Student Success.

A Leave of Absence is considered to be a period of time when a student does not attend classes but intends to return at some point. Individuals typically take a Leave of Absence when depression, anxiety, trauma, substance use, or other disorder is interfering with his/her daily life to the point that he/she is unable to function and complete required tasks. A Leave of Absence can also be taken for medical reasons, such as a serious medical condition or to care for a family member with a health condition. Once granted, a student may not attend classes or any College sponsored event during a Leave of Absence.

Any leave of absence for medical and/or mental health reasons that exceeds 72 hours will require clearance from a licensed provider before returning to classes.

- d. 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 COP 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
- **e. Academic Integrity:** Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 of the ULM *Student Policy Manual* <a href="http://www.ulm.edu/studentpolicy/">http://www.ulm.edu/studentpolicy/</a>). All professional students will adhere to the standards set forth in the College of Pharmacy's Code of Conduct (<a href="http://www.ulm.edu/pharmacy/currents.html">http://www.ulm.edu/pharmacy/currents.html</a>).
  - 1. 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 Conduct and is prohibited.

## **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, etc.), collaboration on take home exams, or the use of unapproved information or electronic devices to assist in obtaining answers.

- **f. Course Evaluation Policy:** At a minimum, students are expected to complete the online course evaluation.
- 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 University's technical standards and policies concerning students with special needs (<a href="http://www.ulm.edu/studentpolicy/studentpolicy.pdf">http://www.ulm.edu/studentpolicy/studentpolicy.pdf</a>). ULM student services, such as the Student Success Center (<a href="http://ulm.edu/cass/">http://ulm.edu/studentpolicy/studentpolicy.pdf</a>). Counseling Center (<a href="http://ulm.edu/counselingcenter/">http://ulm.edu/cass/</a>), and Student Health Services, is available at the following Student Services web site <a href="http://ulm.edu/studentaffairs/">http://ulm.edu/studentaffairs/</a>. Students with special needs requiring accommodations MUST follow the process described at <a href="http://rxweb.ulm.edu/pharmacy/student/specialneeds.pdf">http://rxweb.ulm.edu/pharmacy/student/specialneeds.pdf</a>.

# 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 3183425230 or to file a complaint, visit <a href="https://www.ulm.edu/titleix">www.ulm.edu/titleix</a>.

**h. 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 south parking lot between the Bienville building and Tower Drive. 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 College policies and procedures.

- i. 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 <a href="https://ssb-prod.ec.ulm.edu/PROD/bwgkogad.P">https://ssb-prod.ec.ulm.edu/PROD/bwgkogad.P</a> SelectAtypUpdate. Students should do this by the end of the first week of classes.
- j. 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 <a href="https://www.ulm.edu/professional-licensure-disclosures/index.html">https://www.ulm.edu/professional-licensure-disclosures/index.html</a>. 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.

# X. Tentative Course Schedule: \*subject to change at the discretion of the Course Coordinator Class will meet in Bienville 170; Tu/Th~11:00am-11:50am~and~Fri~8:00am-9:50am

Day	Date	Lecture	Topic	Instructor
Tu	16-Jan	1	Calcium/Phos/Vitamin D Pcol	Barabutis
Th	18-Jan	2	Osteoporosis Agents, Pcol	Barabutis
F-8am	19-Jan	3	Osteoporosis Agents, Med Chem	El Sayed
F-9am	19-Jan	4	Vitamin D Deficiency	Horace
Tu	23-Jan	5	Osteoporosis Therapeutics	Horace
Th	25-Jan	6	Gout Med Chem (not NSAIDs)	El Sayed
F-8am	26-Jan	7	Gout Pharmacology	Briski
F-9am	26-Jan	8	Gout Therapeutics	Cockerham
Tu	30-Jan	9	Osteoarthritis Therapeutics	S. Hill
Th	1-Feb	10	Osteoarthritis Therapeutics	S. Hill
F-8am	2-Feb	11	DMARDs, RA/SLE Biologics Med Chem	El Sayed
F-9am	2-Feb	12	Rheumatoid Arthritis Therapeutics	Brady
Tu	6-Feb	13	Rheumatoid Arthritis Therapeutics	Brady
Th	8-Feb		Exam 1 (lectures 1-10) - 80 pts	
F-8am	9-Feb	14	Lupus (SLE)	Brady
F-9am	9-Feb	15	Acne/Psoriasis/Nail Infection Pcol	Briski
Tu	13-Feb		Mardi Gras Break	
Th	15-Feb	16	Acne/Psoriasis/Nail Infection Med Chem	Barabutis
F	16-Feb	17	Acne Therapeutics/Rx Induced Skin Reactions	S. Hill
F	16-Feb	18	Psoriasis Therapeutics	S. Hill
Tu	20-Feb		Exam 2 (lectures 11-18) - 64 pts	
Th	22-Feb	19	Eczema/Dermatitis Therapeutics	S. Hill
F-8am	23-Feb	20	Nail Infection Therapeutics	S. Hill
F-9am	23-Feb	21	Pathophysiology of the Eye	Briski
Tu	27-Feb	22	Glaucoma, Dry Eye, Antibacterial Pcol	Briski
Th	29-Feb	23	Glaucoma, Dry Eye, Antibacterial Med Chem	Barabutis
F-8am	1-Mar	24	Glaucoma, Dry Eye, Antibacterial Med Chem	Barabutis
F-9am	1-Mar	25	Conjunctivitis	S. Hill
Tu	5-Mar	26	Glaucoma Therapeutics	Zagar
Th	7-Mar	27	Glaucoma Therapeutics	Zagar
F-8am	8-Mar	28	Dry Eye Therapeutics	Zagar

F-9am	8-Mar	29	Pediatric Growth & Development	Tice
Tu	12-Mar		Pediatric TDM, Drug Dosing & Delivery	Tice
Th	14-Mar	30	Exam 3 (lectures 19-28) - 80 pts	
F	15-Mar	31	Sickle Cell Disease	Tice
F	15-Mar	32	Congenital Heart Disease	Tice
Tu	19-Mar	33	Neonatal Critical Care	Tice
Th	21-Mar	34	Pediatric Dehydration/ORT/PALS	Tice
F-8am	22-Mar	35	Pediatric Critical Care/Bronchiolitis	Tice
F-9am	22-Mar	36	Menstruation Disorders	Terrell
Tu	26-Mar	37	PCOS & Endometriosis	Terrell
Th	28-Mar	38	Infertility	Terrell
F	29-Mar		Spring Break	
F	29-Mar		Spring Break	
Tu	2-Apr		Spring Break	
Th	4-Apr		Spring Break	
F	5-Apr		Spring Break	
F	5-Apr		Spring Break	
Tu	9-Apr		Exam 4 (lectures 29-38) - 80 pts	
Th	11-Apr	39	Pregnancy	Terrell
F-8am	12-Apr	40	Lactation	Terrell
F-9am	12-Apr	41	Transgender Care	Horace
Tu	16-Apr	42	Transgender Care (guest speaker)	Horace
Th	18-Apr	43	Physiology/Issues of Aging	Zagar
F	19-Apr	44	Geriatric Kinetics	Zagar
F	19-Apr	45	Polypharmacy/Adherence	Zagar
Tu	23-Apr	46	Adverse Drug Events/Falls	Zagar
Th	25-Apr	47	Potentially Inappropriate Medications	Zagar
F	26-Apr	48	Potentially Inappropriate Medications	Zagar
F	26-Apr	49	Geriatric Vaccines	Zagar
Tu	30-Apr	50	Geriatric Cases	Zagar
F-9am	3-May		Exam 5 (lectures 39-41 and 43-49) - 80 pts	