University of Texas at Austin  
College of Pharmacy  
Spring, 2019

Course Title: Clinical Management of Drug-Drug Interactions

Course Number: PHM 390K (Unique # 59179)

Credit Hours: 3

Location: TBD

Faculty: Dr. Yasar Tasnif, Pharm.D., BCPS, FAST  
DHR Health Transplant Institute  
Cell – (206) 407-8395

Meeting Times: Mondays, Time TBD

Office Hours: Office hours will vary, so please make arrangements with faculty to schedule time to meet.

Course Description:

This three-hour course is designed to provide the student with an understanding of clinically relevant drug-drug interactions, the significance and clinical management. Students will be working directly with the instructor of this course in a small group discussion based environment to promote learning.

Pre-Requisites for this Course:

Prior approval of the course instructor is required to register. Course may be repeated for credit.

Course Objectives:

Students are expected to complete book chapter readings, assignments, and journal article assessments. Course readings will be relevant to the pathophysiology of drug absorption, metabolism, bio-transformation, excretion, and interactions. Readings will also include case reports, guidelines and position statements regarding drug-drug interactions. Students are expected to take an active part in learning and teaching in this course.

Enrolled students will:

- Attend and actively participate in class and facilitate related activities
- Review and read course readings as assigned and be prepared to discuss and teach the group
- Identify a research question as assigned by the instructor and engage in literature review, and develop a familiar with research methodologies
- Prepare a poster presentation (ex. case study) and/or lecture on the a drug-drug interaction topic, and present this at a conference meeting or to faculty and students
- Participate in a debate on a topic determined by the instructor
Required Textbook:

The required textbook for this course will be *The Top 100 Drug Interactions 2018: A Guide to Patient Management*, by Phillip D. Hansten, Pharm.D. and John Horn, Pharm.D..

Required Reading:

Students will also be assigned reading materials (textbook, journal, case studies or other materials) per instructor.

Suggested Reading:

*Applied Clinical Pharmacokinetics*, Larry Bauer (available online at the Clinic website, UT Austin).

Teaching Methods:

A variety of teaching methods may be employed including but not limited to discussions, lectures, case studies, demonstrations, audio-visual and on-line instruction. Students will also facilitate group discussions. Students are responsible for contacting instructors with questions or other academic needs pertaining to course materials. Clarification of course materials should be sought directly with the instructor.

Website and Communications:

- Accessible only to students registered in the course via Canvas at canvas.utexas.edu.
- UTeid and password required.
- Canvas will contain copies of PowerPoint slide presentations, learning objectives, case studies, readings, the course syllabus, and other course materials.
- Canvas will be used to distribute course materials, communicate and collaborate online, and to post grades.
- In this course e-mail will be used as a means of communication with students. Course announcements may be posted in Canvas as an announcement or sent via the Canvas listserv as an email.
- You will be responsible for checking your e-mail regularly for class work and announcements.
- Please keep your email address on the UT computer mainframe current at all times.

University Electronic Mail Notification Policy:

All students should become familiar with the University’s official e-mail student notification policy. It is the student’s responsibility to keep the University informed as to changes in his or her e-mail address. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. The complete text of this policy and instructions for updating your e-mail address are available at [http://www.utexas.edu/its/policies/emailnotify.html](http://www.utexas.edu/its/policies/emailnotify.html).

Attendance Policy:

Students are expected to meet with the instructor at least weekly on a routine basis. Meeting times are to be scheduled in advance with the instructor. Students are expected to participate in any group or web-based activities required by the instructor. The student will be held responsible for all course materials regardless of attendance. It will be left to the discretion of the instructor whether make-up opportunities will be made available for those who miss attendance or an associated activity. Any changes and or cancelations (other than emergencies) are to be made in advance and with the instructors consent. Request for excused absences should
be made directly to the course coordinator. Instructors may make accommodations for students with approved absences.

**Religious Holidays:**

Religious holy days sometimes conflict with class and examination schedules. If you miss a work assignment or other project due to the observance of a religious holy day you will be given an opportunity to complete the work missed within a reasonable time after the absence. It is the policy of the University of Texas at Austin that you must notify each of your instructors at least fourteen days prior to the classes scheduled on dates you will be absent to observe a religious holy day.

**Assessment**

Student assessment will be evaluated by attendance in meetings with the faculty member, participation in assigned activities, completion of assignments, presentation, lecture, and debate.

**Grading/Assessment Points**

Attendance and Participation – 40%
Presentation/Poster and Debate – 40%
Completion of Readings/Research Assignments – 20%

**Grading Scale**

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<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
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<tr>
<td>B</td>
<td>80-89%</td>
</tr>
<tr>
<td>C</td>
<td>70-79%</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
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<tr>
<td>F</td>
<td>≤ 59%</td>
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**Examinations**

There will be no examinations. See Assessment for grading details.

**Professionalism:**

It is an expectation that all students will demonstrate professionalism in all aspects of this course. Respect for others should be demonstrated during discussions, and in completed assignments. Any conduct deemed unprofessional will be dealt with in accordance to policies of the College of Pharmacy and The University of Texas. Failure to act professionally could result in failure of this course.

**Student Rights & Responsibilities:**

- You have a right to a learning environment that supports mental and physical wellness.
- You have a right to respect.
- You have a right to be assessed and graded fairly.
- You have a right to freedom of opinion and expression.
- You have a right to privacy and confidentiality.
- You have a right to meaningful and equal participation, to self-organize groups to improve your learning environment.
- You have a right to learn in an environment that is welcoming to all people. No student shall be isolated, excluded or diminished in any way.
With these rights come responsibilities:

- You are responsible for taking care of yourself, managing your time, and communicating with the teaching team and with others if things start to feel out of control or overwhelming.
- You are responsible for acting in a way that is worthy of respect and always respectful of others. Your experience with this course is directly related to the quality of the energy that you bring to it, and your energy shapes the quality of your peers’ experiences.
- You are responsible for creating an inclusive environment and for speaking up when someone is excluded.
- You are responsible for holding yourself accountable to these standards, holding each other to these standards, and holding the teaching team accountable as well.

**Personal Pronoun Preference**

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student’s legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

**University Policies**

*The University of Texas Honor Code*

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

*Scholastic Dishonesty*

The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on a test, quiz, or other assignment, and submission of essentially the same written assignment for two courses without the prior permission of the instructor. By accepting this syllabus, you have agreed to these guidelines and must adhere to them. Scholastic dishonest damages both the student’s learning experience and readiness for the future demands of a work-career. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. For more information on scholastic dishonesty, please visit the Student Judicial services Web site at [http://deanofstudents.utexas.edu/sjs](http://deanofstudents.utexas.edu/sjs)

*Q Drop Policy*

If you want to drop a class after the 12th class day, you’ll need to execute a Q drop before the Q-drop deadline, which typically occurs near the middle of the semester. Under Texas law, you are only allowed six Q drops while you are in college at any public Texas institution. For more information, see: [http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop](http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop)
University Resources for Students

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we’ll develop strategies to meet both your needs and the requirements of the course. There are also a range of resources on campus:

Services For Students With Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

Classroom Evacuation Procedures

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.

Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class. In the event of an evacuation, follow the instruction of faculty or class instructors.

Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.

Behavior Concerns Advice Line

BCAL: 232-5050
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic (May be Adjusted as Determined by Instructor)</th>
<th>Presenter</th>
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| Week 1 – January 28 | Introduction to Course: Syllabus review, expectations for the Course, and review of drug information resources  
  • Drug levels to ensure efficacy of narrow therapeutic index drugs                                                                                                                                                           | Instructors                    |
| Week 2 – February 4 | Organ systems overview and basic concepts:  
  • Sites for drug-drug interactions (stomach, small intestine, liver, and kidney)  
  • PK concepts and definitions such as AUC, drug exposure, MIC and therapeutic index, enzyme affinity and substrate inhibition                                                                                           | Instructors                    |
| Week 3 – February 11 | Interactions that can occur in the stomach  
  • Chelation (Levaquin and divalent cations); PPIs and interactions with antimalarials, HIV medications, and anti-Tb medications.  
  • Clinical management of these interactions/Cases                                                                                                                                   | Dr. Tasnif /Student facilitation and Case Presentation |
| Week 4 – February 18 | Interactions that can occur in the small intestine  
  • P-gp, CYP systems, enterohepatic recycling  
  • Cyclosporine and ketoconazole; Digoxin and amiodarone interactions  
  • Clinical management of these interactions/Cases                                                                                                                                       | Dr. Tasnif /Student facilitation and Case Presentation |
| Week 5 – February 25 | CYP System Interactions (3A4, 2C9, 2C19, 1A2)  
  • Clinical management of these interactions/Cases                                                                                                                                           | Dr. Tasnif / Student facilitation and Case Presentation |
| Week 6 – March 4    | CYP System Interactions (3A4, 2C9, 2C19, 1A2)  
  • Clinical management of these interactions/Cases                                                                                                                                           | Dr. Tasnif / Student facilitation and Case Presentation |
| Week 7 – March 11   | Drug food interactions  
  • Increase and decrease in absorption with food  
  • Atovaquone  
  • Itraconazole  
  • Chocolate milk and cyclosporine  
  • Cases                                                                                                                                                                                                 | Dr. Tasnif / Student facilitation and Case Presentation |
|                      | **Spring Break (No Class)**                                                                                                                                                                                                                                                                         |                                 |
| Week 8 – March 25   | Substrate inhibition and CYP3A4  
  • Ritonavir  
  • Erythromycin  
  • Grapefruit juice  
  • Statins  
  • Cases                                                                                                                                                                                                 | Dr. Tasnif / Student facilitation and Case Presentation |
| Week 9 – April 1    | Induction  
  • Rifampin, Phenytoin, Carbamazepine  
  • Clinical management of these interactions  
  • Cases                                                                                                                                                                                                 | Dr. Tasnif / Student facilitation and Case Presentation |
| Week 10 – April 8   | Warfarin Interactions and management                                                                                                                                                                                                                                                             | Dr. Cruz                       |
| Week 11 – April 15  | Herbal and OTC Interactions                                                                                                                                                                                                                                                                       | Dr. Hernandez                  |
| Week 12 – April 22 to May 8 | Debate and Topic Presentations                                                                                                                                                                                                                                                                   | Student Presentation |