



**School of Pharmacy**  
**Required Course Syllabus**  
**Spring – P3**  
**Course # PHAR 6477 (4 Credit Hours) / Track Integrated Systems Based Pharmacotherapy**  
**(ISBP IIIB2)**  
**Course Dates (March 9 – May 4, 2022)**  
**Campbell Building & Room #212**  
**MTWTh: 1:00pm-2:50pm**  
**IPPE: 0 hrs/IPE: 0 hrs**

**Yong Qin, PhD**

Assistant Professor

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Office Hours: Every Friday (11:30 am – 12:30 pm, March 9 – May 4, 2021) or TBD time

**Additional Faculty**

|  |  |
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| Mary L. Chávez, PharmD, FAACP<br>Associate Dean for Academic Affairs<br>Phone: (915) 747-8242<br>Email: <a href="mailto:mlchavez11@utep.edu">mlchavez11@utep.edu</a> | Suman Sirimulla, Ph.D.<br>Assistant Professor<br>Office: 716<br>E-Mail: <a href="mailto:ssirimulla@utep.edu">ssirimulla@utep.edu</a>   |
| Denise I. Pinal, PharmD, BCPPS<br>Clinical Assistant Professor<br>Phone: (915) 747- 5884<br>Email: <a href="mailto:denisepi@utep.edu">denisepi@utep.edu</a>          | Yasar Tasnif, PharmD<br>Transplant Pharmacist Specialist<br>Office: University of Texas SW, William P Clements Jr<br>University Hospital, Dallas<br>E-Mail: <a href="mailto:tasnif@gmail.com">tasnif@gmail.com</a> |
|  | Boa Choi, PharmD<br>Clinical Instructor<br>Email: <a href="mailto:bchoi@utep.edu">bchoi@utep.edu</a>   |

**Office Hours**

The course coordinator will post office hours and will accommodate students as time permits. Students may request an appointment with the coordinator in person or via e-mail. Individual guest faculty should provide office hours during lecture days. All appointments should be made at least 2 business days in advance.

Time will be reserved on Thursday or Friday (one hour) following each Exam to review exam answer keys with the coordinator, instructor, and teaching assistant (TA) on Blackboard or Zoom virtual classroom (online). Students will need to set up an individual appointment with the faculty instructor if they have a specific concern regarding an exam question.

## Course Description

The Integrated Systems-Based Pharmacotherapy (ISBP) course series begins in the P2 year (primary care focus) and continues through the P3 year (advanced pharmacotherapy/acute care/specialty focus), providing the essentials for integrating foundational knowledge with practice and care. Faculty from Pharmaceutical Sciences and Clinical Sciences will work together to design a comprehensive, integrated approach to pharmacotherapy, which includes a practical application lab and an integrated lab. The topics in this course include Toxicology, Psychiatry, Neurology, and Critical Care.



**Pharmacists' Patient Care Process:** This course will help students utilize the concepts of pathophysiology, medicinal chemistry, pharmacology, and therapeutics in the evaluation and treatment of various disease states.

Source: <https://doi.org/10.21019/9781582122564.ch6>

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### Questions Related to the Course and Grading/Exams

In general, questions related to the overall course should be directed to the coordinator. **Content/topic-specific questions** should be directed to the content instructor within **five (5) business days** of the material being presented.

Any questions concerning **assignments/exam grades** should be discussed with the **course coordinator within five (5) business days** after the grades have been posted.

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### Additional / Detailed Course Meetings & Location

Class will meet **M,T,W,Th from 1:00pm-1:50pm and 2:00pm-2:50pm**. To date, all the lectures are planned to be held in person. Some of the sections will be synchronous (live via an online platform) according to the instructors. The participation and attend the lectures are required. For the students' and faculty's safety, the course will be adjusted accordingly to the online platform based on the situation of the Pandemic.

Exams (1-5) will be held on **Tuesday morning from 7:30-8:50 AM on ExamSoft**.

Final Exam time and date: **May 11, 2022 (1pm - 3:45pm)**.

In a major disruption (e.g., H1N1 epidemic, subzero weather), be prepared to maintain course progress via other means (e.g., Internet, our Blackboard course shell, etc.) and check your email (especially your UTEP miners account) regularly.

#### Online Platform/Blackboard:

Accessing Course Content on Blackboard: All lectures, handouts, and course material will be located in Blackboard. Log into My UTEP.edu and click on the Blackboard link to access the online course for PHAR 6477. The course is individualized, and students may access course material as it is made available by course instructors. Except in cases of a UTEP network being "down" or "offline" you are ultimately responsible to ensure that your computer is connected to the internet and that any issues are addressed prior to class and/or assessments.

#### Online Assessment Requirements:

This course requires the use of ExamSoft®. Students are responsible for creating their online login within the first week of class. It is the student's responsibility to maintain access to a reliable internet connection (with the rare exception of when UTEP's systems are down).

If students cannot access your online account, please contact Adrian Enriquez ([aealonso@utep.edu](mailto:aealonso@utep.edu)), to resolve this issue within five (5) business days of the first day of class. Students are responsible for ensuring they have access to the online assessment system. Mr. Enriquez is NOT available for questions or laptop failures/requests after business hours or on weekends.

Electronic exams need to be downloaded at a minimum of 2 hours prior to the examination to avoid a 10% grade penalty deduction. Repeated instances (> 1 time) of not downloading electronic exams will result in a referral to the SOP Progression Committee and may result in an additional 10% grade penalty deduction from the student's earned exam score.

| Course Objectives   | CAPE       | PCOA/Naplex  | Assessment |
|---|------------|--|------------|
| <b>Objective 1:</b> Apply the basic anatomy and physiology concepts necessary to understand the cellular and molecular organization of the system   | 1.1        | 4.2.1  | Exams      |
| <b>Objective 2:</b> Describe the pathophysiology responsible for all disease states covered.  | 1.1        | 4.2.1  |            |
| <b>Objective 3:</b> Classify the structure-activity relationships (SARs) to drug receptor/target interactions.  | 1.1        | 2.1.4  |            |
| <b>Objective 4:</b> Identify SARs with regard to characteristic pharmacophores and drug-receptor interactions for specific drugs and drug classes.  | 1.1        | 2.1.3<br>2.1.6   |            |
| <b>Objective 5:</b> Illustrate the mechanism of pharmacological action (including toxicology, adverse effects, and drug-drug interactions) of specific drugs and drug classes in affecting/treating a targeted disease state.   | 1.1        | 2.2.1, 2.2.3,<br>2.2.4<br>2.2.6  |            |
| <b>Objective 6:</b> Apply the general principles of drug pharmacokinetics/pharmacodynamics and pharmacogenomics into the drug therapy plan.   | 1.1<br>2.1 | 2.2.2  |            |
| <b>Objective 7:</b> Integrate pathophysiology concepts and basic principles of pharmaceutical sciences into the therapeutic decision making process.  | 1.1<br>2.1 | 4.2.1<br>4.1.5   |            |
| <b>Objective 8:</b> Describe the etiology, incidence, and prognosis associated with disease states covered, including toxicological conditions.   | 1.1        | 4.1.5  |            |
| <b>Objective 9:</b> Recognize the major signs, symptoms, and clinical findings associated with each disease state, including toxicological conditions   | 1.1        | 4.1.5<br>4.7.8   |            |
| <b>Objective 10:</b> Identify usual medication doses, dosage forms, adverse drug reactions, and monitoring parameters of drug classes.  | 1.1        | 4.3.2, 4.5.1,<br>4.7.1,<br>4.7.2, 4.7.3,<br>4.7.9                            |            |
| <b>Objective 11:</b> Formulate a comprehensive drug therapy plan that incorporates non-pharmacologic and pharmacologic approaches including: first-line therapy, alternative therapies, monitoring parameters and diagnostic interpretations, desired therapeutic goals/outcomes, and considerations for special populations (e.g. pediatrics, geriatrics, multiple disease states) | 2.1<br>3.1 | 4.1.4, 4.3.1,<br>4.4.1,<br>4.5.1, 4.7.1,<br>4.7.2,<br>4.7.3, 4.7.5,<br>4.7.6 |            |

It is the responsibility of the **student** to monitor his/her progress during the course. Students should seek advice and assistance from the course facilitator as soon as he/she encounters any difficulty in the course.

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## Methods of Instruction/Learning

The learning outcomes in this course will be achieved via:

1. Outside Preparation (e.g. readings, micro-lecture videos)
  2. In-class Lectures (e.g. case applications, in-class quizzes)
  3. Exams
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## Required Course Technology/Tools/Needs

### Required Textbooks:

- Bauer LA. *Applied Clinical Pharmacokinetics*. 3<sup>rd</sup> ed. ISBN 978-0071794589. Available in AccessPharmacy.
- Brunton LL. *Goodman & Gilman's The Pharmacologic Basis of Therapeutics*. 13<sup>th</sup> ed. ISBN 978-0071624428. Available in AccessPharmacy.
- DiPiro JT. *Pharmacotherapy: A Pathophysiologic Approach*. 11<sup>th</sup> ed. <https://0-accesspharmacy-mhmedical-com.lib.utep.edu/content.aspx?bookid=2577&sectionid=248126979>
- Hammer GD. *Pathophysiology of Disease: An Introduction to Clinical Medicine*. 7<sup>th</sup> ed. ISBN 978-0071806008. Available in AccessPharmacy.
- Hoffman RS. *Goldfrank's Toxicologic Emergencies*. 10<sup>th</sup> ed. ISBN 978-0071801843. Available in AccessPharmacy.
- Johnson JA. *Pharmacogenomics: Applications to Patient Care*. 3<sup>rd</sup> ed. ISBN 978-1939862099.
- Krinsky DL. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*. 19<sup>th</sup> ed. ISBN 978-1582122656. Available in PharmacyLibrary.
- Lemke TL. *Foye's Principles of Medicinal Chemistry*. 7<sup>th</sup> ed. ISBN 9781609133450.

### Recommended Textbooks:

- Beale JM. *Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry*. 12<sup>th</sup> ed. ISBN 978-0781779296.
- Bertino JS. *Pharmacogenomics: An Introduction and Clinical Perspective*. 1<sup>st</sup> ed. ISBN 978-0071741699. Available in AccessPharmacy.
- Golan DE. *Principles of Pharmacology: The Pathophysiologic Basis of Therapeutics*. 4<sup>th</sup> ed. ISBN 978-1451191004.
- Jameson JL. *Harrison's Principles of Internal Medicine*. 20<sup>th</sup> ed. ISBN 978-1-259-64403-0. Available in AccessPharmacy.
- Katzung BG. *Basic and Clinical Pharmacology*. 14<sup>th</sup> ed. ISBN 978-1259641152. Available in AccessPharmacy.
- LeFever Kee J. *Handbook of Fluids, Electrolytes, and Acid-Base Imbalances*. 3<sup>rd</sup> ed. ISBN 14353689. Available in Pharmacy E-Books.
- Morton DA. *The Big Picture: Gross Anatomy*. 1<sup>st</sup> ed. ISBN 978-0071476720. Available in AccessPharmacy.
- Murphy JE. *Clinical Pharmacokinetics*. 6<sup>th</sup> ed. ISBN 978-1585285365.
- Zdanowicz M. *Concepts in Pharmacogenomics*. 2<sup>nd</sup> ed. ISBN 978-1585285167.

### Laptop:

Students are expected to bring laptop computers to the class each day for participation in on-line exercises or assessments. It is the responsibility of the students to make sure that the laptops are in working condition and meets the University and School of Pharmacy IT requirements (See SOP Student Handbook).

If you have not already, go to <https://app.reef-education.com> to create a FREE iClicker account. Search for UTEP in the institution dropdown, enter your FIRST and LAST name and miners.utep.edu email address. If you already have an iClicker account, you will be able to add PHAR 6476 ISBP IIB2 to your course list. More instructions on how to access the course will be provided to you either on Blackboard and/or the first day of class.

Calculator:

Students are expected to bring a non-programmable calculator to class and to all assessment activities.

Software/Technology must be tested in orientation/first week of courses to ensure functionality.

- ExamSoft® Exam Monitor
- Blackboard® Collaborate: Chrome Browser
- Microsoft® Teams
- Blackboard® Respondus Lockdown
- iClicker REEF mobile app or website
- Audio (speaker & microphone) and video (camera) MUST be checked to be functional for classes and online exams

**Evaluation and Grading Policy**

| Type of Assessment  | Total Points | % course Grade |
|---|--------------|----------------|
| Class assignments, activities, participation  | 36.8         | 12.27          |
| Exam 1 (Lectures 1-10)  | 40           | 13.33          |
| Exam 2 (Lectures 11-22)   | 48           | 16             |
| Exam 3 (Lectures 23-33)   | 44           | 14.67          |
| Exam 4 (Lectures 34-44)   | 44           | 14.67          |
| Exam 5 (Lectures 45-52)   | 32           | 10.67          |
| Final Exam: Lectures 53-58 [24 questions, 24 points] + 52 questions (Lectures 1-52, 0.6/each) | 55.2         | 18.4           |
| <b>Total Points</b>   | <b>300</b>   | <b>100</b>     |

Course point

**Assignment of grades:**

- A = 90 – 100%**
- B = 80 – 89%**
- C = 70 – 79%**
- D = 60-69%**
- F = < 60%**

Class Assignments and Activities:

Faculty may assign **in-class** or pre-class assignments such as reading or watching “micro-lecture” videos to assist with outside class preparation. This may be done utilizing Panopto or Blackboard Collaborate through the class Blackboard shell. Faculty may assess your completion of these **assignments (including case studies)** and knowledge through quizzes embedded in the videos (i.e. Panopto) or through the use of an iClicker quiz **throughout the class. Active learning, in class exercises** using iClicker, and cases will be administered throughout the course. **These assignments, group activities, and participation performances will contribute to a total of 12% of your total course**

**score.** Course coordinators retain the option to drop one or two of the student's lowest-scoring activities at the end of the semester and/or issue **bonus points** for activities and participation, at their discretion. Bonus points could also be awarded by instructors as the bonus questions in each exams or class quizzes.

Exams:

There will be a total of six exams including the final exam. The exams will consist of true/false, matching, multiple choice, and multiple answer (e.g. select all that apply) questions. All exams will be administered via ExamSoft®, unless noted otherwise.

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### **Attendance**

The attendance policy for the School of Pharmacy is outlined in the Student Handbook. It is expected that students should demonstrate their commitment to the profession and respect for faculty, guest speakers, and colleagues by attending all classes and arriving to class on time prepared for the day's lesson(s).

If a student has an excused absence, they should immediately notify the course coordinator(s) and instructor(s). To secure approval for an absence related to travel for professional meetings or for events that fall outside of the criteria outlined in the Student Handbook, please refer to the Handbook for more information regarding required documentation for submission to the Office of Student Affairs.

### **Classroom Behavior**

Students are expected to be professionals and will be treated as such unless circumstances deem otherwise. Any behavior that impairs student ability to learn will not be tolerated (e.g., side conversation, cell phone use, electronic device use for activities not related to coursework). Laptops may be used during class for taking notes. Using laptops for other activities than taking notes causes a disruption to the class around you.

### **Expectations of Students During Course**

It is the responsibility of the **student** to monitor his/her progress during the course. Students should seek advice and assistance from the course facilitator as soon as he/she encounters any difficulty in the course.

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### **Exam Day Policy**

Students must arrive on time for examinations. Students arriving after any student(s) has/have completed the exam and have left the room may not be allowed to sit for the exam and may receive a score of zero. No allowances will be made for an exam being missed, other than documented illness or emergency. The student must contact the course coordinator for confirmation prior to the exam. If permission is granted to delay the exam; it is the student's responsibility to contact the course coordinator to arrange for an alternative exam time. In this event, the nature of the make-up will be at the discretion of the course coordinator (oral, written, increased weighting on the final, etc.). An unexcused absence from an exam may result in a grade of "zero" for that exam.

### **Student Expectations Prior and During Examination**

Due to the pandemic, all the exams were planned to be hold via ExamSoft®, unless noted otherwise.

Exams: Electronic exams need to be **downloaded at a minimum 2 hours prior to the examination.**

Students are responsible for having a computer for electronic exams. Computers are available to check-out as a loan for exams from the ILC, and students should make early arrangements for securing computers. Students who show up without a computer to take an electronic exam will (1) be provided a paper exam, (2) may receive a grade

deduction as stipulated in the course syllabus, and (3) will receive a professionalism referral to the SOP Progression Committee.

#### Availability of items during exam

By default, faculty will provide scratch paper for examinations, unless faculty determines scratch paper is not necessary in which case students will receive advance notice that scratch paper will not be provided. Only faculty will provide scratch paper, and only scratch paper provided by the School of Pharmacy can be used during the examination. Any scratch paper utilized during an examination must have the student's name and date on every page and all pages must be turned in at the completion of the examination. Any exemption will be noted accordingly in the syllabus.

- No backpacks, purses, hats, large coats, and/or other bulky clothing permitted; these items need to be left outside the examination room or in an area in the exam room designated by the faculty/proctor.
  - No food or drink allowed during an exam.
  - No electronic devices (for example: watches, phones, calculators, etc.) are permitted on the student during an examination unless approved by the instructor prior to the examination or inspected upon entry into the exam room for approval. A specific model for calculators may be specified in the course syllabus or provided in advance of the examination to students.
  - Disruption of examination time due to an electronic device can result in a grade penalty as stipulated in the syllabus.
  - Bathroom break: No bathroom breaks permitted during examinations unless a prior accommodation is made. Faculty maintain discretion over the permissibility of bathrooms breaks; students should expect that a proctor will accompany them to the restroom and will wait outside the restroom if permission for restroom use is granted. No additional time will be provided for examinations when restroom breaks occur.
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#### **Missed Quizzes/Exams/Assignments – Excused/Unexcused Absences**

Only students who miss an exam, quiz or an assignment due date as a result of an **excused absence** will be allowed to make-up the missed assignment or assessment. Students should consult the UTEP School of Pharmacy **Student Handbook** for definitions and examples of excused absences.

- The course coordinator **MUST** be notified on the day of the exam for the student to be excused from that exam for an **emergency**.
- In the case of **religious holidays**, the student **MUST** notify the course coordinator 10 business days prior to the exam. Students should not assume that they can miss an exam for vacation or other personal conflicts.
- Any excused absence from an exam for **health reasons** must be documented with a note from an appropriate health professional.
- Any unexcused absence from an exam will result in a grade of zero for that exam.

The course coordinator will determine the time and date for a make-up exam, which will occur before the final exam period. If the student is unable to attend either the original exam or the make-up exam, the course coordinator is not required to provide additional opportunities for the student make-up exam. The format of the make-up examination is at the discretion of the course coordinator, and may include any question type including, but not limited to, open-ended questions, an essay examination, or oral examinations.

#### **Remediation Policy**

Students must participate fully in the course to be eligible for remediation. Please refer to the Student Handbook for end-of-course remediation policies and timelines (**see Table of Contents for End of Course Remediation**).

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**General Statement about Course Policy** The syllabus is subject to change to meet course needs, especially if there are unexpected disruptions or changes in class size, resources, etc. The most updated syllabus can be found on the course Blackboard shell. It is the student's responsibility to review the syllabus periodically for updates.

#### **UTEP and SOP Policy for Academic Integrity**

Any student who commits an act of academic dishonesty is subject to discipline. The instructor is required to report all suspected academic dishonesty to the UTEP Office of Student Conduct and Conflict Resolution. Please refer to the Student Handbook for SOP guidance on academic integrity (*see Table of Contents for Curriculum and Classroom Policies: Academic Integrity*).

Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts.

Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP), and available in the Office of the Dean of Students and on the homepage of the Dean of Students at [www.utep.edu/dos](http://www.utep.edu/dos), may result in sanctions ranging from disciplinary probation, to a failing grade on the work in question, to a failing grade in the course, to suspension or dismissal, among others. For more information, see: <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>

#### **Professionalism and Professional Conduct**

While enrolled at the University, a student neither loses the rights nor escapes the responsibilities of citizenship. Thus, UTEP and the SOP value professionalism and expect all students to not only acquire but also maintain the highest standards of professional attitudes and behaviors in their interactions with their fellow classmates, staff, faculty, colleagues and their patients, as described in the UTEP School of Pharmacy Student Handbook and as per UTEP's student conduct policies (see <https://www.utep.edu/student-affairs/osccr/student-conduct/index.html> / for further information). Any student who engages in conduct that is prohibited by the Board of Regents' Rules and Regulations, University or SOP rules or by federal, state, or local law is subject to discipline whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct. Please refer to the Student Handbook for specific expectations regarding professional conduct in the SOP (*see Table of Contents for Academic Progression: Good Standing: Professional*).

#### **Cell Phones**

Students should carry cell phones, but keep the phone on the vibrate mode in the event students need to be notified by the emergency alert system. Cell phone use for the purpose of texting, email or social media is not permitted. This use is disruptive to fellow classmates, faculty and the learning environment. The use of a cell phone or the ringing of the phone in class is considered unprofessional behavior. No cellphones, calculators, laptops or other items may be used during an assessment (e.g., exam or a quiz) unless specifically as part of that assessment and approved by the faculty member/instructor.

#### **Technical Assistance**

Checking computer requirements and ensuring that all software up to date is essential for students to access course content. **Supported browsers include –**

- 1) **For a PC:** FireFox, Internet Explorer (Do NOT use IE7), and Chrome
- 2) **For a Mac:** Safari, Firefox, and Chrome

To enhance browser performance, students should clear the browser cache and allow pop-ups. In addition to testing the web browser, check to ensure that the computer has an updated version of **Java** (go to <http://java.com>, click on "Do I have Java", click on "Verify Java Version," update Java if needed). Additional browser plug-ins may



also be needed to view some content that your instructor may share on the learning management system. Common plug-ins include: **Adobe Reader, Flash Player, Windows Media Player, QuickTime**. When creating documents, slide presentations, spreadsheets, etc., be sure to use Microsoft Office or a compatible program (see 10 Free MS Word Alternatives). The UTEP Technology Support Services (3rd floor, UTEP Library) can also provide students with any applications, compatibility packs, patches, and updates that may be needed.

Students working off campus may need to set up a **Virtual Private Network (VPN)** on their computer to access UTEP resources for this class (i.e., Library). The link below provides information in setting up a VPN connection depending on the operating system. Students may contact the UTEP Help Desk (915-747-HELP) for assistance or [https://www.utep.edu/technologysupport/ServiceCatalog/NET\\_VPNGlobalProtect.html](https://www.utep.edu/technologysupport/ServiceCatalog/NET_VPNGlobalProtect.html)

If technical problems are experienced with the course, students should contact the **UTEP Help Desk** during: Monday–Friday: 8AM – 5PM. If calling within UTEP: 915.747.4357. If calling from outside UTEP: 915.747.5257. For more information, please visit <http://helpdesk.utep.edu>. For help with **Blackboard**: [https://www.utep.edu/technologysupport/ServiceCatalog/BB\\_Students.html](https://www.utep.edu/technologysupport/ServiceCatalog/BB_Students.html)

In order for UTEP to provide a stable learning environment, Thursdays from 12:00-6:00am MST are reserved for minor preventive maintenance. This maintenance window is scheduled during the lowest usage time for the system. Blackboard may or may not be available during this time, depending on whether maintenance is necessary. Whenever possible, this time will be utilized to perform all minor maintenance. Unscheduled outages occur rarely, but they do happen. In the event of an unscheduled outage, Technology Support Services will confer with appropriate student and faculty networks to provide appropriate notifications to those affected.

Students can also visit an on-campus lab such as the ATLAS lab located within the Undergraduate Learning Center (UGLC building) for additional technical assistance. In addition to the various campus computer labs (ATLAS in UGLC or LACIT in Liberal Arts for example), Technology Support Services provides workstations for student use. To learn more, please visit: [https://www.utep.edu/technologysupport/ServiceCatalog/BB\\_Students.html](https://www.utep.edu/technologysupport/ServiceCatalog/BB_Students.html)

#### **UTEP and SOP Policy for Special Accommodations (ADA)**

“If you have or suspect a disability and need classroom accommodations, you should contact the Center for Accommodations and Support Services (CASS) at 747-5148.” You can also e-mail the office at [cass@utep.edu](mailto:cass@utep.edu) or go by their office in Union Building East (Room 106). For additional information, visit the CASS website at <http://sa.utep.edu/cass/>.

Students must notify the course coordinator by Wednesday, October 23, 2019 if they will be using their accommodations. This is to allow sufficient time for the course coordinator to accommodate alternate exam-taking locations/times or any other accommodations approved by CASS.

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#### **Additional Information**

##### **Campus Concealed Carry:**

Effective August 1, 2016. <https://www.utep.edu/campuscarry/>

##### **Civility Statement:**

You are expected to follow basic standards of courtesy (<https://www.utep.edu/student-affairs/dean-of-students-office/community-of-care/index.html>) and may be dismissed from class for blatant or sustained disruptive behavior.

##### **Student Support:**

UTEP provides a variety of resources for those in need (e.g., if you feel overwhelmed, stressed or dealing with a crisis):

- UTEP's Counseling Center (free counseling to all students): **915-747-5302**, which after-hours goes to a crisis line
- Mental Health Crisis Line: 915-779-1800
- National Suicide Prevention Hotline: 1-800-273-8255 / [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)
- **Veterans Crisis Line: 1-800-273-8255 / [www.veteranscrisisline.net](http://www.veteranscrisisline.net)**
- NAMI (National Alliance on Mental Illness) of El Paso: 915-534-5478 / <https://namiep.org>
- <http://carineducators.tumblr.com/survival>

**Title IX:**

Title IX of the Education Amendments of 1972 (Title IX), prohibit discrimination on the basis of sex in education programs or activities operated by recipients of Federal financial assistance. Sexual harassment of students, which includes acts of sexual violence, is a form of sex discrimination prohibited by Title IX. Sexual violence refers to physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to an intellectual or other disability. A number of different acts fall into the category of sexual violence, including rape, sexual assault, sexual battery, sexual coercion, stalking, and relationship violence. All such acts of sexual violence are forms of sexual harassment covered under Title IX.

In accordance with Title IX of the Education Amendments of 1972, UTEP does not discriminate on the basis of sex in the operation of its educational programs and activities. This commitment to non-discrimination applies to both employment in and admission to such programs and activities. [Link to full text at <https://www.utep.edu/titleix/>].

**Course # PHAR 6477 (4 Credit Hours) / Track Integrated Systems Based Pharmacotherapy  
(ISBP IIIB2)**

**Integrated Systems Based Pharmacotherapy**

**Course Dates (March 9 – May 4, 2022)**

**In Person or Live via Online Platform**

**MTWTh: 1:00pm-2:50pm**

**IPPE: 0 hrs/IPE: 0 hrs**

**PHAR 6477: Course Calendar and Topic Outline**

| Day   | Time     | Lecture Number | Topics   | Pharm Sci | PPCS   | Synchronous (S) Video (V) | Assignment Activities | Required Reading |
|---|----------|----------------|--|-----------|--------|---------------------------|-----------------------|------------------|
| <b>Module 1: Principles of Cancer Therapies (Pharmacology &amp; Med Chem)</b> |          |                |  |           |        |                           |                       |                  |
| Wed   | March 9  | Lecture 1      | Course overview/Syllabus Review (0.5 h)<br>Pathophysiology of Cancer (Molecular basis)                         | Qin       |        |                           |                       |                  |
| Wed   | March 9  | Lecture 2      | Pathophysiology of Cancer (Molecular basis)  | Qin       |        |                           |                       |                  |
| Thur  | March 10 | Lecture 3      | Introduction to Clinical Oncology  |           | Chavez |                           |                       |                  |
| Thur  | March 10 | Lecture 4      | Introduction to Clinical Oncology  |           | Chavez |                           |                       |                  |
| <b>March 14 - March 18 Spring Break</b>                                       |          |                |  |           |        |                           |                       |                  |
| Mon   | March 21 | Lecture 5      | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Alkylating Agents and Platinum Coordination Complexes</b> | Qin       |        |                           |                       |                  |
| Mon   | March 21 | Lecture 6      | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Alkylating Agents and Platinum Coordination Complexes</b> | Qin       |        |                           |                       |                  |
| Tues  | March 22 | Lecture 7      | Chemotherapy and Antineoplastic (Med Chem)<br><b>Alkylating agents and Platinum Coordination Complexes</b>     | Sirimulla |        |                           |                       |                  |
| Tues  | March 22 | Lecture 8      | Chemotherapy and<br><b>Antineoplastic (Pharmacology)</b><br><b>Antimetabolites</b>                             | Qin       |        |                           |                       |                  |
| Wed   | March 23 | Lecture 9      | Chemotherapy and<br><b>Antineoplastic (Pharmacology)</b><br><b>Antimetabolites</b>                             | Qin       |        |                           |                       |                  |
| Wed   | March 23 | Lecture 10     | Chemotherapy and<br><b>Antineoplastic (Med Chem)</b><br><b>Antimetabolites</b>                                 | Sirimulla |        |                           |                       |                  |
| <b>End of material for Exam #1 (Lectures 1-10)</b>                            |          |                |  |           |        |                           |                       |                  |
| Thur  | March 24 | Lecture 11     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Antibiotics</b>   | Qin       |        |                           |                       |                  |

| Day  | Time            | Lecture Number | Topics  | Pharm Sci | PPCS | Synchronous (S) Video (V) | Assignment Activities | Required Reading |
|--|-----------------|----------------|---|-----------|------|---------------------------|-----------------------|------------------|
| Thur   | March 24        | Lecture 12     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Natural Products</b>               | Qin       |      |                           |                       |                  |
| Mon  | March 28        | Lecture 13     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Natural Products</b>               | Qin       |      |                           |                       |                  |
| Mon  | March 28        | Lecture 14     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Natural Products</b>               | Qin       |      |                           |                       |                  |
| <b>Tues</b>  | <b>March 29</b> |                | <b>Exam #1 (Classes 1 – 10) 7:30am-8:50am</b>   |           |      |                           |                       |                  |
| Tues   | March 29        | Lecture 15     | Chemotherapy and Antineoplastic (Med Chem)<br><b>Antibiotics &amp; Natural Products</b> | Sirimulla |      |                           |                       |                  |
| Tues   | March 29        | Lecture 16     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Hormones and related agents</b>    | Qin       |      |                           |                       |                  |
| Wed  | March 30        | Lecture 17     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Hormones and related agents</b>    | Qin       |      |                           |                       |                  |
| Wed  | March 30        | Lecture 18     | Chemotherapy and Antineoplastic (Med Chem)<br><b>Hormones and related agents</b>        | Sirimulla |      |                           |                       |                  |
| Thur   | March 31        | Lecture 19     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Pathway targeted therapies</b>     | Qin       |      |                           |                       |                  |
| Thur   | March 31        | Lecture 20     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Pathway targeted therapies</b>     | Qin       |      |                           |                       |                  |
| Mon  | April 4         | Lecture 21     | Chemotherapy and Antineoplastic (Pharmacology)<br><b>Immunotherapies</b>                | Qin       |      |                           |                       |                  |
| Mon  | April 4         | Lecture 22     | Chemotherapy and Antineoplastic (Med Chem)<br><b>Pathway targeted therapies</b>         | Sirimulla |      |                           |                       |                  |
| <b>End of Material for Exam #2 (Lectures 11-22)</b>    |                 |                |   |           |      |                           |                       |                  |
| <b>Module 2: Clinical Pharmacotherapies (Oncology)</b> |                 |                |   |           |      |                           |                       |                  |
| Tues   | April 5         | Lecture 23     | Oncology Supportive Care and Oncologic Emergencies (Pharmacotherapy)                    |           | Choi |                           |                       |                  |
| Tues   | April 5         | Lecture 24     | Oncology Supportive Care and Oncologic Emergencies (Pharmacotherapy)                    |           | Choi |                           |                       |                  |
| Wed  | April 6         | Lecture 25     | Oncology Supportive Care and Oncologic Emergencies (Pharmacotherapy)                    |           | Choi |                           |                       |                  |

| Day   | Time            | Lecture Number | Topics   | Pharm Sci | PPCS   | Synchronous (S) Video (V) | Assignment Activities | Required Reading |
|---|-----------------|----------------|--|-----------|--------|---------------------------|-----------------------|------------------|
| Wed   | April 6         | Lecture 26     | Oncology Supportive Care and Oncologic Emergencies (Pharmacotherapy)   |           | Choi   |                           |                       |                  |
| Thur  | April 7         | Lecture 27     | Oncology Supportive Care and Oncologic Emergencies – <b>End-of-Life and Palliative Care</b> (Pharmacotherapy)    |           | Choi   |                           |                       |                  |
| Thur  | April 7         | Lecture 28     | Pharmacotherapy of Hematologic/Plasma Malignancies ( <b>Acute Leukemia</b> ) [Special Populations- Pediatrics]   |           | Pinal  |                           |                       |                  |
| Mon   | April 11        | Lecture 29     | Pharmacotherapy of Hematologic/Plasma Malignancies ( <b>Acute Leukemia</b> ) [Special Populations- Pediatrics]   |           | Pinal  |                           |                       |                  |
| Mon   | April 11        | Lecture 30     | Pharmacotherapy of Hematologic/Plasma Malignancies ( <b>Chronic Leukemia</b> ) [Special Populations- Pediatrics] |           | Chavez |                           |                       |                  |
| <b>Tues</b>                                       | <b>April 12</b> |                | <b>Exam #2 (Classes 11-22) 7:30am-8:50am</b>   |           |        |                           |                       |                  |
| Tues  | April 12        | Lecture 31     | Pharmacotherapy of Hematologic/Plasma Malignancies ( <b>Chronic Leukemia</b> ) [Special Populations- Pediatrics] |           | Chavez |                           |                       |                  |
| Tues  | April 12        | Lecture 32     | Pharmacotherapy of Hematologic/Plasma Malignancies - <b>Lymphoma</b>   |           | Chavez |                           |                       |                  |
| Wed   | April 13        | Lecture 33     | Pharmacotherapy of Hematologic/Plasma Malignancies - <b>Multiple myeloma</b>                                     |           | Chavez |                           |                       |                  |
| <b>End of Material of Exam #3 (Classes 23-33)</b> |                 |                |  |           |        |                           |                       |                  |
| Wed   | April 13        | Lecture 34     | Pharmacotherapy of Breast Cancer   |           | Chavez |                           |                       |                  |
| Thur  | April 14        | Lecture 35     | Pharmacotherapy of Breast Cancer   |           | Chavez |                           |                       |                  |
| Thur  | April 14        | Lecture 36     | Pharmacotherapy of Cervical Cancer   |           | Qin    |                           |                       |                  |
| Mon   | April 18        | Lecture 37     | Pharmacotherapy of Ovarian Cancer  |           | Chavez |                           |                       |                  |
| Mon   | April 18        | Lecture 38     | Pharmacotherapy of Prostate Cancer   |           | Chavez |                           |                       |                  |
| <b>Tues</b>                                       | <b>April 19</b> |                | <b>Exam #3 (Classes 23–33) 7:30am-8:50am</b>   |           |        |                           |                       |                  |
| Tues  | April 19        | Lecture 39     | Pharmacotherapy of Prostate Cancer   |           | Chavez |                           |                       |                  |

| Day  | Time            | Lecture Number | Topics   | Pharm Sci | PPCS   | Synchronous (S) Video (V) | Assignment Activities | Required Reading |
|--|-----------------|----------------|--|-----------|--------|---------------------------|-----------------------|------------------|
| Tues   | April 19        | Lecture 40     | Pharmacotherapy of Lung Cancer                   |           | Chavez |                           |                       |                  |
| Wed  | April 20        | Lecture 41     | Pharmacotherapy of Lung Cancer                   |           | Chavez |                           |                       |                  |
| Wed  | April 20        | Lecture 42     | Pharmacotherapy of Colorectal Cancers            |           | Chavez |                           |                       |                  |
| Thur   | April 21        | Lecture 43     | Pharmacotherapy of Colorectal Cancers            |           | Chavez |                           |                       |                  |
| Thur   | April 21        | Lecture 44     | Pharmacotherapy of Renal Cell Carcinoma          |           | Chavez |                           |                       |                  |
| <b>End of material for Exam #4 (Classes 34-44)</b>                       |                 |                |  |           |        |                           |                       |                  |
| Mon  | April 25        | Lecture 45     | Pharmacotherapy of Melanoma                      |           | Qin    |                           |                       |                  |
| Mon  | April 25        | Lecture 46     | Pharmacotherapy of Melanoma                      |           | Qin    |                           |                       |                  |
| <b>Tues</b>  | <b>April 26</b> |                | <b>Exam #4 (Classes 34-44) 7:30am-8:50am</b>     |           |        |                           |                       |                  |
| Tues   | April 26        | Lecture 47     | Management of Sickle Cell Disease (Special Pops) |           | Pinal  |                           |                       |                  |
| Tues   | April 26        | Lecture 48     | Management of Sickle Cell Disease (Special Pops) |           | Pinal  |                           |                       |                  |
| Wed  | April 27        | Lecture 49     | Pharmacotherapy of Thrombocytopenia/HIT          |           | Chavez |                           |                       |                  |
| <b>Module 3. Solid Organ and Hematopoietic Stem Cell Transplantation</b> |                 |                |  |           |        |                           |                       |                  |
| Wed  | April 27        | Lecture 50     | Solid Organ Transplant                           |           | Tasnif | V                         |                       |                  |
| Thur   | April 28        | Lecture 51     | Solid Organ Transplant                           |           | Tasnif | V                         |                       |                  |
| Thur   | April 28        | Lecture 52     | Transplant Med Chem                              | Sirimulla |        |                           |                       |                  |
| <b>End of Material for Exam #5 (Classes 45-52)</b>                       |                 |                |  |           |        |                           |                       |                  |
| Mon  | May 2           | Lecture 53     | Solid Organ Transplant                           |           | Tasnif | V                         |                       |                  |
| Mon  | May 2           | Lecture 54     | Solid Organ Transplant                           |           | Tasnif | V                         |                       |                  |
| <b>Tues</b>  | <b>May 3</b>    |                | <b>Exam #5 (Classes 45-52) 7:30 am -8:50am</b>   |           |        |                           |                       |                  |
| Tues   | May 3           | Lecture 55     | Solid Organ Transplant                           |           | Tasnif | S                         |                       |                  |
| Tues   | May 3           | Lecture 56     | Solid Organ Transplant                           |           | Tasnif | S                         |                       |                  |
| Wed  | May 4           | Lecture 57     | Solid Organ Transplant                           |           | Tasnif | S                         |                       |                  |

| Day   | Time                         | Lecture Number | Topics   | Pharm Sci | PPCS   | Synchronous (S)<br>Video (V) | Assignment Activities | Required Reading |
|---|------------------------------|----------------|--|-----------|--------|------------------------------|-----------------------|------------------|
| Wed   | May 4                        | Lecture 58     | Hematopoietic stem cell transplantation (HSCT)                 |           | Chavez |                              |                       |                  |
| <b>End of Material for the whole course</b> |                              |                |  |           |        |                              |                       |                  |
| <b>Wed</b>                                  | <b>May 11<br/>(1-3:45pm)</b> |                | <b>Final Exam: Lectures (53-58) + Previous Material (1-52)</b> |           |        |                              |                       |                  |