



**School of Pharmacy  
Required Course Syllabus**

Spring - P2

Course # PHAR 6472 IIB1 Track: Integrated Systems-Based Pharmacotherapy IIB1  
January 22-March 12, 2019

**Course Coordinator**

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**Course Co-Coordinator**

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**Additional Course Faculty:**

Fatima Alshbool, PharmD, PhD – Assistant Professor – [fzalshbool@utep.edu](mailto:fzalshbool@utep.edu)  
Sweta Andrews, PharmD, MBA, BCACP – Clinical Assistant Professor – [sandrews@utep.edu](mailto:sandrews@utep.edu)  
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**Office Hours**

The course coordinators 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 at least 2 business days in advance. The course coordinator is available for grading questions or problems. Individual faculty lecturers should only be contacted regarding questions related to the material taught by them. Please make an appointment at least 2 business days in advance to meet with other course faculty.

Time will be reserved on Mondays and Wednesdays from 2:30-4:00 pm (starting 02/04/19) to review exam answer keys with a Teaching Assistant (TA) in Room 503. Students will need to set up an individual appointment with the faculty instructor if they have a specific concern regarding an exam question.

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**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: Endocrine, Men's and Women's Health, Dermatology, Ophthalmology, Hematology, and Musculoskeletal and Connective Tissue Disorders.

**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.

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### **Course Learning Objectives**

At the conclusion of this course, students shall be expected to:

1. Apply the basic anatomy and physiology concepts to understand the cellular and molecular organization of the system.
  2. Describe the pathophysiology responsible for all disease states covered.
  3. Integrate pathophysiology concepts into the therapeutic decision making process.
  4. Determine the structure-activity relationships (SARs) to drug receptor/target interactions
  5. Identify SARs with regard to characteristic pharmacophores and drug-receptor interactions for specific drugs and drug classes.
  6. Explain the mechanism of pharmacological action (including toxicological and adverse effects) of specific drugs and drug classes in affecting/treating a targeted disease state.
  7. Describe the etiology, incidence, and prognosis associated with disease states covered.
  8. Identify the major signs, symptoms, and clinical findings associated with each disease state.
  9. Discuss general principles of drug pharmacokinetics, the PK/PD relationship, and the concept of dose-response.
  10. Define general principles of pharmacogenomics.
  11. Identify usual medication doses, dosage forms, side effects, adverse drug reactions, and monitoring parameters.
  12. Formulate a comprehensive drug therapy plan that incorporates non-pharmacologic and pharmacologic approaches including first-line therapy, alternative therapies, monitoring parameters, desired therapeutic goals/outcomes, and considerations for special populations (e.g. pediatrics, geriatrics).
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### **Detailed Course Meetings & Location**

MTWTh 9-9:50 and 10:10:50 AM Campbell Building Room 212

Weekly exams will be held from 8-8:50 AM on Mondays in Campbell Building Room 212

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 6472. The course is individualized and students may access lectures/handouts as they are 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 ensuring they have access to the online assessment system. Assessments will be disseminated before the due date. This requires students to download the assessment using an internet connection. 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).

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

Students are expected to be professionals and will be treated as such unless circumstances deem otherwise. Any behavior that impairs students’ ability to learn will not be tolerated. Cell phones should NEVER be heard in class! Cell phones should never be used in class. Sending or receiving text messages during class is unacceptable. Sending or reading emails in class is also unacceptable. Laptops may be used during class for taking notes. Using your laptop for other activities than taking notes causes a disruption to the class around you. If your cell phone or other device rings/makes noise during class you will receive a 2-point deduction on your final grade. If your cell phone or other device rings/makes noise during an exam you will receive a 4-point deduction on your final grade. Other penalties are at the discretion of the course coordinator.

Attendance at lectures is not mandatory in that attendance will not be taken at each lecture. However, attendance and punctuality at lectures are strongly recommended and expected as a sign of professional behavior. If large numbers of students are absent, the course coordinator reserves the right to give unannounced quizzes. Missing class for work is NOT a valid reason for your absence.

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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Course Objectives	CAPE Outcomes	PCOA	Outcome Measures
<b>Objective 1:</b> Apply the basic anatomy and physiology concepts to understand the cellular and molecular organization of the system	1.1	1.1.1	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	2.1.1, 2.1.2, 2.1.4, 2.1.5	
<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, 2.1.4	
<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, 2.2.2, 2.2.3, 2.2.4	
<b>Objective 6:</b> Apply the general principles of drug pharmacokinetics/pharmacodynamics and pharmacogenomics into the drug therapy plan.	1.1	2.5.3, 2.6.2 4.3.1, 4.3.2 4.4.1	
<b>Objective 7:</b> Integrate pathophysiology concepts and basic principles of pharmaceutical sciences into the therapeutic decision-making process	1.1	4.1.5, 4.1.6 4.6.4	
<b>Objective 8:</b> Describe the etiology, incidence, and prognosis associated with disease states covered, including toxicological conditions.	1.1	3.1.4	
<b>Objective 9:</b> Recognize the major signs, symptoms, and clinical findings associated with each disease state, including toxicological conditions	1.1	4.6.3	
<b>Objective 10:</b> Identify usual medication doses, dosage forms, adverse drug reactions, and monitoring parameters of drug classes	1.1	2.2.3, 4.7.1, 4.7.2, 4.7.8, 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 3.1	4.1.4 4.5.1, 4.5.2 4.7.1, 4.7.2, 4.7.3, 4.7.4, 4.7.5, 4.7.6, 4.7.7, 4.7.8	

### CAPE Educational Outcomes

The Center for the Advancement of Pharmacy Education (CAPE) has defined educational outcomes to guide the PharmD curriculum (see AACP CAPE Outcomes [weblink](#)). The content of this course will cover the following CAPE educational outcomes.

**Level of Assessment:** 1 – Introduce 2 – Reinforce 3 – Apply

	CAPE Outcomes	Assessment
<b>1.1</b>	<b>Learner (Learner)</b> 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.	<b>2</b>
<b>2.1</b>	<b>Patient-centered care (Caregiver)</b> 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).	<b>1</b>
<b>3.1</b>	<b>Problem Solving (Problem Solver)</b> Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.	<b>2</b>

## PCOA

**Level of Assessment:** 1 – Introduce 2 – Reinforce 3 – Apply

	<b>PCOA Outcome</b>	<b>Assessment</b>
2.1.1	Physicochemical properties of drugs in relation to drug absorption, distribution, metabolism, and excretion (ADME)	2
2.1.2	Chemical basis for drug action	2
2.1.3	Fundamental pharmacophores for drugs used to treat diseases	2
2.1.4	Structure-activity relationships in relation to drug-target interactions	2
2.1.5	Chemical pathways of drug metabolism	2
2.2.1	Mechanisms of action of drugs of various categories including biologics	2
2.2.2	Pharmacodynamics of drug binding and response	2
2.2.3	Adverse effects and side effects of drugs	2
2.2.4	Mechanisms of drug-drug interactions	2
2.5.3	Physiologic determinates of drug onset and duration, including disease and dietary influences on absorption, distribution, metabolism, and excretion	2
2.6.2	Genetic variants affecting drug action and metabolism, adverse drug reactions, and disease risk that influence the practice of personalized medicine	1
3.1.4	Public Health and Wellness: chronic disease prevention, health promotion, infectious disease control, demographics, physical, social, and environmental factors leading to disease, comparing and contrasting public health with individual medical care	2
4.1.4	Interpret guidelines as they apply in a clinical setting	1
4.1.5	Utilize core scientific and systems-based knowledge in the patient care decision-making process	1
4.1.6	Utilize basic science principles in the development and/or implementation of drug treatment protocols and clinical practice guidelines	1
4.2.1	Apply concepts of pathophysiology to clinical decision making	1, 2
4.3.1	Utilize pharmacokinetics to calculate, evaluate, and individualize drug therapy	1
4.3.2	Interpret clinical pharmacokinetics of commonly used and low-therapeutic-index drugs	1
4.4.1	Utilize pharmacogenomics to calculate, evaluate, and individualize drug therapy	1
4.5.1	Recognize the proper use of nonpharmacologic therapies, including complementary and alternative medicines	1, 2
4.5.2	Describe measures to promote wellness and disease prevention	2
4.6.3	Differentiate between normal physical assessment findings and modifications caused by common disease states and drug therapy	1, 2
4.6.4	Interpret common clinical laboratory values and diagnostic tests	2
4.7.1	Make therapy recommendations based on dosage calculations, specific uses and indications of drugs, and nutritional and support therapy	1
4.7.2	Interpret therapeutic drug concentrations	1
4.7.3	Assess pharmacotherapy considering contraindications, therapeutic duplications, dietary interactions, adverse drug reactions and interactions, and allergies	1, 2
4.7.4	Triage and identify when to refer patients to other health professionals	1, 2
4.7.5	Design patient-centered, culturally-relevant treatment plans	1, 2
4.7.6	Apply evidence-based decision making to patient care	1, 2
4.7.7	Recommend nonprescription and natural product therapies	1, 2
4.7.8	Identify and manage drug toxicity, drug-induced diseases, and misuse or abuse	1
4.7.9	Monitor drug therapy for misuse, abuse, and non-adherence	1

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## Methods of Instruction/Learning

The learning outcomes in this course will be achieved via:

1. Outside Preparation (Reading, Micro-lecture videos)
  2. In-class Lectures
  3. Exams
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## Required Course Technology/Tools/Needs

### Required Textbooks:

- Brunton LL. *Goodman & Gilman's The Pharmacologic Basis of Therapeutics*. 13<sup>th</sup> ed. ISBN 978-0071624428. Available in AccessPharmacy.
- Beale JM. *Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry*. 12<sup>th</sup> ed. ISBN 978-0781779296.
- Hoffman RS. *Goldfrank's Toxicologic Emergencies*. 10<sup>th</sup> ed. ISBN 978-0071801843. Available in AccessPharmacy.
- DiPiro JT. *Pharmacotherapy: A Pathophysiologic Approach*. 10<sup>th</sup> ed. ISBN 978-125958741. Available in AccessPharmacy.
- Hammer GD. *Pathophysiology of Disease: An Introduction to Clinical Medicine*. 7<sup>th</sup> ed. ISBN 978-0071806008. Available in AccessPharmacy.
- Johnson JA. *Pharmacogenomics: Applications to Patient Care*. 3<sup>rd</sup> ed. ISBN 978-1939862099.
- Bauer LA. *Applied Clinical Pharmacokinetics*. 3<sup>rd</sup> ed. ISBN 978-0071794589. Available in AccessPharmacy.
- Krinsky DL. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*. 19<sup>th</sup> ed. ISBN 978-1582122656. Available in PharmacyLibrary.

### Recommended Textbooks:

- Golan DE. *Principles of Pharmacology: The Pathophysiologic Basis of Therapeutics*. 4<sup>th</sup> ed. ISBN 978-1451191004.
- Katzung BG. *Basic and Clinical Pharmacology*. 14<sup>th</sup> ed. ISBN 978-1259641152. Available in AccessPharmacy.
- Morton DA. *The Big Picture: Gross Anatomy*. 1<sup>st</sup> ed. ISBN 978-0071476720. 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.
- 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.
- Bertino JS. *Pharmacogenomics: An Introduction and Clinical Perspective*. 1<sup>st</sup> ed. 978-0071741699. Available in AccessPharmacy.

### Laptop

Students are expected to bring laptop computers to the class each day for participation in on-line exercises or assessments.

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 6472 ISBP IIB1 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

Non-graphing, non-programmable calculator

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## **Evaluation and Grading Policy**

Course point distribution will be as follows:

<b>Type of Assessment</b>	<b>Total Points</b>	<b>% Course Grade</b>
Pre-Class Assignments/Class Participation	30	10
Exam 1	22	7
Exam 2	32	10
Exam 3	24	8
Exam 4	32	10
Exam 5	36	11
Exam 6	32	10
Exam 7	28	9
Final Exam	78	25
<b>Total Points</b>	<b>314</b>	<b>100</b>

### **Assignment of grades:**

**A = 90 – 100%**

**B = 80 – 89%**

**C = 70 – 79%**

**D = 60-69%**

**F = < 60%**

Pre-Class Assignments: Faculty may assign 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 activities and knowledge through quizzes embedded in the videos (i.e. Panopto) or through the use of an iClicker quiz at the start of class. This will contribute to a total of 5% of your total course score. The coordinator may drop one or two of the student’s lowest-scoring activities at the end of the semester.

Class Activities: Active learning using iClicker and cases will be administered throughout the course. This will contribute a total of 5% towards the total score. The coordinator may drop one or two of the student’s lowest-scoring activities at the end of the semester.

### Exams:

There will be a total of eight 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.

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## **Missed Quizzes/Exams Policy**

The course coordinator **MUST** be notified on the day of the exam for the student to be excused from that exam. Do not assume you can miss an exam for vacation or other personal conflicts. Any unexcused absence from an exam will result in a grade of zero for that exam. ***Any excused absence from an exam for health reasons must be documented with a note from an appropriate health professional.*** All make-up exams will be administered

during the final exam day/week. The make-up exam may involve oral, short-answer, or essay questions. Failure to take the make-up exam will result in a grade of zero for that exam. Failure to take the final exam will result in a grade of F for the course.

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

### Seating

Randomized assigned seating will be utilized for each examination.

### Room

Students must arrive to room 15 minutes ahead of examination. Students are not permitted to be in the examination room prior to assigned seating. If the student arrives late to the examination a grade penalty can occur as stipulated by the syllabus. No additional time will be provided for the examination. If another student has already completed his/her exam and left the exam room when an unexcused late student arrival occurs, the late arrival will not be permitted to sit for the exam and will receive a grade of zero.

### Exams

Electronic exams need to be downloaded at a minimum 2 hours prior to the examination to avoid a grade penalty as dictated in the syllabus. Repeated instances (> 1 time) of not downloading electronic exams will result in a referral to the professionalism committee on the SOP Progression Committee.

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 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

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. For exams requiring the use of a calculator, students may bring a non-graphing/programmable calculator. Students will be asked to remove the cover/case of their calculator and may be asked to submit the calculator for visual inspection by the faculty and/or proctor.

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 bathroom 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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## **Remediation Policies**

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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## **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 Help Desk for assistance (See Technical Assistance information). <http://admin.utep.edu/Default.aspx?tabid=58534>

If technical problems are experienced with the course, students should contact the UTEP Helpdesk 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: <http://admin.utep.edu/Default.aspx?tabid=74094>

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 <http://admin.utep.edu/Default.aspx?tabid=74174>.

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## **Attendance and Classroom Behavior Policy**

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. ***Approval for travel to professional meetings or other events should be submitted to the course coordinators as early in advance as possible.***

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## **Academic Integrity Policy**

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: <http://sa.utep.edu/osccr/academic-integrity/>)

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## **Professionalism and Professional Conduct Policy**

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 Student Handbook and as per UTEP's student conduct policies (see <http://sa.utep.edu/osccr/student-conduct/> & <http://admin.utep.edu/Default.aspx?tabid=73922> 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*).

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## **Special Accommodations (ADA)**

If you have or believe you have a disability that may impact your ability to succeed in a class, whether it be online or face-to-face, you may wish to contact the Center for Accommodations and Support Services (CASS) to show documentation of a disability or to register for testing and services. Students who have been designated as disabled must reactivate their standing with the CASS yearly.

If you feel that you may have a disability requiring accommodations and/or modifications, contact CASS at 915-747-5148. You also can visit the CASS website at <http://sa.utep.edu/cass/> or the CASS office in Room 108 East Union Building.

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## **Additional Information**

### **Campus Concealed Carry:**

Effective August 1, 2016.

<http://sa.utep.edu/campuscarry/>

### **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): 747-5302, which after-hours goes to a crisis line
- Mental Health Crisis Line: 779-1800
- National Suicide Prevention Hotline: 1-800-273-8255
- Veterans Crisis Line: 1-800-273-8255
- NAMI (National Alliance Against Mental Illness) of El Paso: 534-5478
- <http://caringeducators.tumblr.com/survival>

### **Civility Statement:**

You are expected to follow basic standards of courtesy (<http://admin.utep.edu/Default.aspx?tabid=73922>) and may be dismissed from class for blatant or sustained disruptive behavior

**School of Pharmacy**

Fall – P2

Course # PHAR 6472 (4 Credit Hours) / Track Integrated Systems Based Pharmacotherapy (ISBP)

**Integrated Systems Based Pharmacotherapy**

Course Dates (January 22 – March 12, 2019)

**Campbell Building & Room #212**

**MTWTh: 9-10:50 AM**

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

**PHAR6472 ----: Course Calendar and Topic Outline**

Week	Time	Topics	Faculty
<b>1</b>	<b>Endocrine Module</b>		
Tue 01/22	9-9:50	Course overview/Syllabus Review (0.5 h) Anatomy and Physiology of Endocrine System [pathophysiology] (0.5 h)	Christenberry/Mendez Alshbool
	10-10:50	Diabetes [Pathophysiology]	Alshbool
Wed 01/23	9-9:50	Diabetes [Pharmacology]	Alshbool
	10-10:50	Diabetes [Pharmacology]	Alshbool
Thu 01/24	9-9:50	Diabetes [Pharmacology]	Alshbool
	10-10:50	Diabetes [Med Chem]	Sirimulla
<b>2</b>	<b>Exam 1 – 01/28 8-8:50 am – Through 01/24 Diabetes [Med Chem]</b>		
Mon 01/28	9-9:50	Diabetes [Pharmacotherapy]	Padilla
	10-10:50	Diabetes [Pharmacotherapy]	Padilla
Tue 01/29	9-9:50	Diabetes [Pharmacotherapy]	Padilla
	10-10:50	Diabetes [Pharmacotherapy]	Padilla
Wed 01/30	9-9:50	Diabetes [Pharmacotherapy]	Padilla
	10-10:50	Thyroid Disorders [Pathophysiology]	Mendez
Thu 01/31	9-9:50	Thyroid Disorders [Pharmacology]	Mendez
	10-10:50	Thyroid Disorders [Med Chem]	Sirimulla
<b>3</b>	<b>Exam 2 – 02/04 8-8:50 am – Through 01/31 Thyroid [Med Chem]</b>		
Mon 02/04	9-9:50	Thyroid Disorders [Pharmacotherapy]	Padilla
	10-10:50	Adrenal/Pituitary Gland Disorders [Pathophysiology]	Mendez
Tue 02/05	9-9:50	Adrenal/Pituitary Gland Disorders [Pharmacology]	Mendez
	10-10:50	Adrenal/Pituitary Gland Disorders [Med Chem]	Sirimulla
Wed 02/06	9-9:50	Adrenal/Pituitary Gland Disorders [Pharmacology]	Mendez
	10-10:50	Adrenal/Pituitary Gland Disorders [Pharmacotherapy]	Padilla
Thu 02/07	9-9:50	Adrenal/Pituitary Gland Disorders [Pharmacotherapy]	Padilla
	10-10:50	Anatomy and Physiology of Men’s and Women’s Reproductive System [Pathophysiology]	Andrews
<b>4</b>	<b>Exam 3 – 02/11 8-8:50 am – Through 02/07 Adrenal [Pharmacotherapy]</b>		
<b>Women’s and Men’s Health Module</b>			
Mon 02/11	9-9:50	Menstrual Cycle Overview [Pathophysiology]	Navarrete
	10-10:50	Contraception [Pharmacology]	Mendez
Tue 02/12	9-9:50	Contraception/Menstrual Disorders [Pharmacotherapy]	Navarrete
	10-10:50	Contraception/Menstrual Disorders [Pharmacotherapy]	Navarrete
Wed 02/13	9-9:50	Contraception/Menstrual Disorders [Pharmacotherapy]	Navarrete
	10-10:50	Menopause [Pharmacotherapy]	Navarrete
Thu 02/14	9-9:50	Osteoporosis [Pathophysiology/Pharmacology]	Alshbool
	10-10:50	Osteoporosis [Med Chem]	Sirimulla
<b>5</b>	<b>Exam 4 – 02/18 8-8:50 am – Through 02/14 Osteoporosis [Pathophys/Pharmacology]</b>		
Mon 02/18	9-9:50	Osteoporosis [Pharmacotherapy]	Andrews
	10-10:50	Osteoporosis [Pharmacotherapy]	Andrews
Tue	9-9:50	Benign Prostate Hyperplasia/Erectile Dysfunction [Pharmacology/Med Chem]	Sirimulla

Week	Time	Topics	Faculty
02/19	10-10:50	Benign Prostate Hyperplasia/Erectile Dysfunction [Pathophysiology/Pharmacotherapy]	Andrews
Wed	9-9:50	Benign Prostate Hyperplasia/Erectile Dysfunction [Pharmacotherapy]	Andrews
02/20	10-10:50	Urinary Incontinence [Pathophysiology/Pharmacology] (0.5 h) Urinary Incontinence [Med Chem] (0.5 h)	Andrews
Thu	9-9:50	Urinary Incontinence [Pharmacotherapy]	Andrews
02/21	10-10:50	Maternal Health (Infertility, Lactation, Post-Partum Care) [Pharmacotherapy]	Andrews
<b>6</b>	<b>Exam 5 – 02/25 8-8:50 am – Through 02/21 Maternal Health [Pharmacotherapy]</b>		
<b>Dermatologic/Ophthalmic/Hematologic Module</b>			
Mon	9-9:50	Alopecia, Psoriasis/Eczema, Acne [Pharmacotherapy]	Andrews
02/25	10-10:50	Alopecia, Psoriasis/Eczema, Acne [Pharmacotherapy]	Andrews
Tue	9-9:50	Dermatologic Disorders (Minor Burns, Dermatitis, Wounds) [Pharmacotherapy]	Andrews
02/26	10-10:50	Dermatologic Disorders (Minor Burns, Dermatitis, Wounds) [Pharmacotherapy]	Andrews
Wed	9-9:50	Conjunctivitis, Xerosis, Allergic Rhinitis [Pharmacotherapy]	Andrews
02/27	10-10:50	Glaucoma, Macular Degeneration, Drug-induced ophthalmic disorders [Pharmacotherapy]	Andrews
Thu	9-9:50	Anemia [Pharmacotherapy]	Christenberry
02/28	10-10:50	Anemia [Pharmacotherapy]	Christenberry
<b>7</b>	<b>Exam 6 – 03/04 8-8:50 am – Through 02/28 Anemia [Pharmacotherapy]</b>		
<b>Musculoskeletal and Connective Tissue Disorders Module</b>			
Mon	9-9:50	Rheumatoid Arthritis & Osteoarthritis [Pathophysiology]	Christenberry
03/04	10-10:50	Rheumatoid Arthritis and Osteoarthritis [Pharmacology]	Christenberry
Tue	9-9:50	Rheumatoid Arthritis and Osteoarthritis [Pharmacology] (0.5 h) Rheumatoid Arthritis and Osteoarthritis [Med Chem] (0.5 h)	Christenberry Sirimulla
03/05	10-10:50	Systemic Lupus Erythematosus [Med Chem] (0.5 h) Gout/Hyperuricemia [Med Chem] (0.5 h)	Sirimulla
Wed	9-9:50	Systemic Lupus Erythematosus [Pathophysiology] (0.5 h) Systemic Lupus Erythematosus [Pharmacology] (0.5 h)	Christenberry
03/06	10-10:50	Systemic Lupus Erythematosus [Pharmacology] (0.5 h) Gout/Hyperuricemia [Pathophysiology] (0.5 h)	Christenberry
Thu	9-9:50	Gout/Hyperuricemia [Pharmacology]	Christenberry
03/07	10-10:50	Rheumatoid Arthritis and Osteoarthritis [Pharmacotherapy]	Christenberry
<b>8</b>	<b>Exam 7 – 03/11 8-8:50 am – Through 03/07 Gout/Hyperuricemia [Pharmacology]</b>		
Mon	9-9:50	Rheumatoid Arthritis and Osteoarthritis [Pharmacotherapy]	Christenberry
03/11	10-10:50	Rheumatoid Arthritis and Osteoarthritis [Pharmacotherapy]	Christenberry
Tue	9-9:50	Systemic Lupus Erythematosus [Pharmacotherapy]	Christenberry
03/12	10-10:50	Gout/Hyperuricemia [Pharmacotherapy]	Christenberry
<b>Fri</b> <b>03/15</b>	<b>Final Exam – From 03/07 RA/OA [Pharmacotherapy] + Comprehensive</b>		

\*\* This topical outline will be followed as closely as possible throughout the semester; however, the instructor(s) reserve the right to adjust the course schedule deemed necessary\*\*