



**School of Pharmacy
Required Course Syllabus**

Spring - P2

Course # PHAR 6473 IIB2 Track: Integrated Systems-Based Pharmacotherapy IIB2

March 13, 2019-May 9, 2019

Course Coordinator

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Course Co- Coordinator

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Emily Christenberry, PharmD, BCPS – Clinical Assistant Professor – ejchristenberry@utep.edu

Office Hours

Students may meet in person with the course coordinators during posted office hours or request an appointment 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.

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: Antimicrobial and antiviral agents; sexually transmitted diseases; respiratory, urinary, and tissue infections; and psychiatric and neurological conditions.

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.

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).

Detailed Course Meetings & Location

M,T,W,Th, 9:00am-9:50am and 10:00am-10:50am, 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 6473. 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 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).

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.

Course Objectives	CAPE Outcomes	PCOA	Outcome Measures
Objective 1: Apply the basic anatomy and physiology concepts to understand the cellular and molecular organization of the system	1.1	1.1.1	Exams
Objective 2: Describe the pathophysiology responsible for all disease states covered.	1.1	4.2.1	
Objective 3: 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	
Objective 4: 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	
Objective 5: 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	
Objective 6: 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	
Objective 7: 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	
Objective 8: Describe the etiology, incidence, and prognosis associated with disease states covered, including toxicological conditions.	1.1	3.1.4	
Objective 9: Recognize the major signs, symptoms, and clinical findings associated with each disease state, including toxicological conditions	1.1	4.6.3	
Objective 10: 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	
Objective 11: 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 (AACP CAPE Outcomes) to guide the Pharm.D. curriculum. The content of this course will cover the following CAPE educational outcomes.	Level of Assessment
Level of Assessment: 1 – Introduce 2 – Reinforce 3 – Apply	
1.1 Learner (Learner) Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient centered care.	2
2.1 Patient-centered care (Caregiver) Provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).	1
3.1 Problem Solving (Problem Solver) Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.	2

PCOA Content Areas

The Pharmacy Curriculum Outcomes Assessment (PCOA) has defined educational content areas to guide the Pharm.D. curriculum. The content of this course will cover the following PCOA educational content areas.	Level of Assessment
Level of Assessment: 1 – Introduce 2 – Reinforce 3 – Apply	
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

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

Required Course Technology/Tools/Needs

Required Textbooks:

- Brunton LL. *Goodman & Gilman's The Pharmacologic Basis of Therapeutics*. 13th ed. ISBN 978-0071624428. Available in AccessPharmacy.
- Beale JM. *Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry*. 12th ed. ISBN 978-0781779296.
- Hoffman RS. *Goldfrank's Toxicologic Emergencies*. 10th ed. ISBN 978-0071801843. Available in AccessPharmacy.

- DiPiro JT. *Pharmacotherapy: A Pathophysiologic Approach*. 10th ed. ISBN 978-125958741. Available in AccessPharmacy.
- Hammer GD. *Pathophysiology of Disease: An Introduction to Clinical Medicine*. 8th ed. ISBN 978-1-260-02650-4. Available in AccessPharmacy.
- Johnson JA. *Pharmacogenomics: Applications to Patient Care*. 3rd ed. ISBN 978-1939862099.
- Bauer LA. *Applied Clinical Pharmacokinetics*. 3rd ed. ISBN 978-0071794589. Available in AccessPharmacy.
- Krinsky DL. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*. 19th ed. ISBN 978-1582122656. Available in PharmacyLibrary.

Recommended Textbooks:

- Golan DE. *Principles of Pharmacology: The Pathophysiologic Basis of Therapeutics*. 4th ed. ISBN 978-1451191004.
- Katzung BG. *Basic and Clinical Pharmacology*. 14th ed. ISBN 978-1259641152. Available in AccessPharmacy.
- Morton DA. *The Big Picture: Gross Anatomy*. 2nd ed. ISBN 978-0071476720. Available in AccessMedicine.
- LeFever Kee J. *Handbook of Fluids, Electrolytes, and Acid-Base Imbalances*. 3rd ed. ISBN 14353689. Available in Pharmacy E-Books.
- Murphy JE. *Clinical Pharmacokinetics*. 6th ed. ISBN 978-1585285365.
- Zdanowicz M. *Concepts in Pharmacogenomics*. 2nd ed. ISBN 978-1585285167.
- Bertino JS. *Pharmacogenomics: An Introduction and Clinical Perspective*. 1st 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 6473 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:

Non-graphing, non-programmable calculators.

Evaluation and Grading Policy

Course point distribution will be as follows:

Type of Assessment	Total Points	% Course Grade
Pre-Class Assignments/ In Class Participation	20	6
Exam 1	48	15
Exam 2	32	10
Exam 3	32	10
Exam 4	32	10
Exam 5	32	10
Exam 6	32	10
Final Exam	92	29
Total Points	320	100

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.

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.

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 nongraphing/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 breaks:

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.

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*).

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>.

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.***

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, 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/>).

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*).

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.

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://carineducators.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

Course # PHAR 6473 (4 Credit Hours) / Track Integrated Systems Based Pharmacotherapy (ISBP)
 Course Dates (March 13, 2019 – May 9, 2019), Campbell Bldg Room #212, MTWTh 9-9:50 and 10:10:50, IPPE: 0 hrs/IPE: 0 hrs

PHAR6473 ---: Course Calendar and Topic Outline

Week	Date	Class #	Content/Topic	Pharm Sci	PPCS Faculty
1 (4hrs)	Wednesd ay03/13	Module 1: Infectious Diseases Part 1			
		Class 1	Intro to course/Introduction to Infectious Disease	Mendez	Norman/ Christenberry
		Class 2	Introduction to Infectious Disease		Christenberry
	Thursday 03/14	Class 3	Introduction to Infectious Disease		Christenberry
		Class 4	Introduction to Infectious Disease		Christenberry
SPRING BREAK 03/18-03/22					
2 (8hrs)	Monday 03/25	Class 1	Antimicrobial Agents [Pharmacology] – Part 1	Alshbool	
		Class 2	Antimicrobial Agents [Pharmacology] – Part 1	Alshbool	
	Tuesday 03/26	Class 3	Antimicrobial Agents [Pharmacology] – Part 1	Alshbool	
		Class 4	Antimicrobial Agents [Pharmacology] – Part 1	Alshbool	
	Wednesd ay03/27	Class 5	Antimicrobial Agents [Pharmacology] – Part 2	Alshbool	
		Class 6	Antimicrobial Agents [Pharmacology] – Part 2	Alshbool	
	Thursday 03/28	Class 7	Antimicrobial Agents [Pharmacology] – Part 2	Alshbool	
		Class 8	Antimicrobial Agents [Pharmacology] – Part 2	Alshbool	
3 (8hrs)	Monday 04/01	Exam 1: Monday 04/01 8:00am-8:50am (03/13-03/28)			
		Class 1	Sexually Transmitted Diseases [Pharmacology]	Alshbool	
		Class 2	Sexually Transmitted Diseases [Pharmacology]	Alshbool	
	Tuesday 04/02	Class 3	Antiviral [Pharmacology]	Alshbool	
		Class 4	Antiviral [Pharmacology]	Alshbool	
	Wednesd ay04/03	Class 5	Antimicrobial Agents [Medicinal Chemistry]	Sirimulla	
		Class 6	Antimicrobial Agents [Medicinal Chemistry]	Sirimulla	
	Thursday 04/04	Class 7	Antimicrobial Agents [Medicinal Chemistry]	Sirimulla	
Class 8		Antimicrobial Agents [Medicinal Chemistry]	Sirimulla		
4 (8hrs)	Monday 04/08	Exam 2: Monday 04/08 8:00am-8:50am (04/01-04/04)			
		Class 1	Sexually Transmitted Diseases [Medicinal Chemistry]	Sirimulla	
		Class 2	Antivirals [Medicinal Chemistry]	Sirimulla	
	Tuesday 04/09	Module 2: Infectious Diseases Part II			
		Class 3	Upper respiratory Tract Infections [Pathophysiology, Pharmacotherapy]		Pinal
	Wednesday ay04/10	Class 4	Upper respiratory Tract Infections [Pathophysiology, Pharmacotherapy]		Pinal
		Class 5	Lower Respiratory Tract Infections [Pathophysiology, Pharmacotherapy]		Pinal
	Thursday 04/11	Class 6	Lower Respiratory Tract Infections [Pathophysiology, Pharmacotherapy]		Pinal
		Class 7	Skin and Soft Tissue Infections [Pathophysiology, Pharmacotherapy]		Pinal
	Class 8	Skin and Soft Tissue Infections [Pathophysiology, Pharmacotherapy]		Pinal	
5 (8hrs)	Monday 04/15	Exam 3: Monday 04/15 8:00am-8:50am (04/08-04/11)			
		Class 1	Urinary Tract Infection [Pathophysiology, Pharmacotherapy]		Pinal
		Class 2	Urinary Tract Infection [Pathophysiology, Pharmacotherapy]		Pinal
	Tuesday 04/16	Class 3	Sexually Transmitted Diseases [Pathophysiology/Clinical Assessment]		Sias

		Class 4	Sexually Transmitted Diseases [pharmacotherapy]		Sias
	Wednesd ay04/17	Class 5	Sexually Transmitted Diseases [pharmacotherapy]		Sias
		Module 3: Psychiatry and Neurology Part 1			
		Class 6	Central Nervous System [Pathophysiology]	Mendez	
	Thursday 04/18	Class 7	Central Nervous System [Pathophysiology]	Mendez	
		Class 8	Acetylcholinesterase inhibitors, NMDA Antagonists [Pharmacology]	Mendez	
6 (8hrs)	Monday 04/22	Exam 4: Monday 04/22 8:00am-8:50am (04/15-04/18)			
		Class 1	Stimulants [Pharmacology]	Mendez	
		Class 2	Antidepressants [[Pharmacology]	Mendez	
	Tuesday 04/23	Class 3	Antidepressants [Pharmacology]	Mendez	
		Class 4	Antidepressants [Pharmacology]	Mendez	
	Wednesd ay04/24	Class 5	Sedatives/Hypnotics [Pharmacology]	Mendez	
		Class 6	Benzodiazepines and other Anxiolytics [Pharmacology]	Mendez	
	Thursday 04/25	Class 7	Acetylcholinesterase inhibitors, NMDA Antagonists [Medicinal Chemistry, 0.5hr], Stimulants [Medicinal Chemistry, 0.5hr]	Sirimulla	
Class 8		Antidepressants [Medicinal Chemistry]	Sirimulla		
7 (8 hrs)	Monday 04/29	Exam 5: Monday 04/29 8:00am-8:50am (04/22-04/25)			
		Class 1	Sedative/Hypnotics [Medicinal Chemistry, 0.5hr] Benzodiazepines and Other Anxiolytics [Medicinal Chemistry, 0.5hr]	Sirimulla	
		Class 2	Benzodiazepines and Other Anxiolytics [Medicinal Chemistry]	Sirimulla	
	Tuesday 04/30	Class 3	Depression [Pharmacotherapy]		Norman
		Class 4	Depression [Pharmacotherapy]		Norman
	Wednesd ay05/01	Module 4: Psychiatry and Neurology Part 2			
		Class 5	Anxiety Disorders [Pharmacotherapy]		Norman
		Class 6	Anxiety Disorders [Pharmacotherapy]		Norman
Thursday 05/02	Class 7	OCD/PTSD [Pharmacotherapy]		Norman	
	Class 8	Neurocognitive Disorders [Pharmacotherapy]		Norman	
8 (8 hrs)	Monday 05/06	Exam 6: Monday 05/06 8:00am-8:50am (04/29-05/02)			
		Class 1	Neurodevelopmental, Disruptive, Impulse-Contro, and Conduct Disorders [Pharmacotherapy]		Norman
		Class 2	Sleep/Wake Disorders [Pharmacotherapy]		Norman
	Tuesday 05/07	Class 3	Sleep/Wake Disorders [Pharmacotherapy]		Norman
		Class 4	Alcohol and Opioid Abuse Treatment, Drugs of Abuse [Pharmacology]	Mendez	
	Wednesd ay05/08	Class 5	Alcohol and Opioid Abuse Treatment, Drugs of Abuse [Pharmacology]	Mendez	
		Class 6	Alcohol and Opioid Abuse Treatment, Drugs of Abuse [Medicinal Chemistry]	Sirimulla	
	Thursday 05/09	Class 7	Substance-Related Disorders [Pharmacotherapy]		Norman
Class 8		Substance-Related Disorders [Pharmacotherapy]		Norman	
Final Exam: 05/13-05/17 (05/06-05/09, plus comprehensive component)					

** 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**