Integrated Pharmacotherapy 2: Infectious Diseases
PHAR 7582
Fall Semester 2019

Course Description
This integrated pharmacy course focuses on the application of skills and resources needed for pharmacists to guide patients' infectious-related needs.

Additional Course Information
This course reviews the pharmacology and therapeutics related to various infectious diseases. Students will also review the medicinal chemistry, biochemistry, and pharmaceutics related to infectious diseases. In addition, students will evaluate treatment guidelines, assess laboratory values, and design treatment regimens in order to provide and design optimal patient care plans.

Course Credit
5 credit hours

Class Meeting Days, Time & Location
Wednesday: 2:00pm – 4:00pm; W.T. Brookshire Hall Room 136
Thursday: 2:00pm – 5:00pm; W.T. Brookshire Hall Room 136

Course Coordinator
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Fisch College of Pharmacy (FCOP) and UT Tyler Policies
This is part 1 of the syllabus. Part 2 contains UT Tyler and the FCOP course policies and procedures. These are available as a PDF at https://www.uttyler.edu/pharmacy/academic-affairs/files/fcop-syllabus-policies.pdf. For experiential courses (i.e., IPPE and/or APPE), the Experiential Manual contains additional policies and instructions that supplement the Syllabus Part 1 and 2. Please note, the experiential manual may contain policies with different deadlines and/or instructions. The manual should be followed in these cases.

Required Materials
Most course required materials are available through the Robert R. Muntz Library. These materials are available either online* (http://library.uttyler.edu/) or on reserve.

1. *Pharmacotherapy: A Pathophysiologic Approach. 10th Ed. DiPiro JT, Talbert RL, Yee GC, et al. eds. McGraw-Hill Education; New York, New York. 2017. ISBN: 978-1-259-58748-1.
2. *Basic and Clinical Pharmacology 14th Edition; Katzung BG. McGraw-Hill Education (c) 2018.
3. Other required materials will be posted on the classes' Canvas site. The site address is: uttyler.edu/canvas.

Recommended Materials
The course recommended materials are on reserve at the Robert R. Muntz Library.

1. Basic Skills in Interpreting Laboratory Data. 5th Edition. Lee M. American Society of Health-System Pharmacist. ISBN: 978-1-58528-343-9, 2013.
2. Review of Medical Microbiology and Immunology. 13th Edition. Levinson W. Lange-McGraw Hill. ISBN978-0-07-181811-7, 2014.

Course Format

The course may include, but are not limited to, the following activities:

1. Independent study of selected readings
2. Individual readiness assessment tests (iRATs)
3. Team-based learning, active learning strategies:

Course Learning Outcomes (CLOs)

CLOs	Related PLO(s) (1-15)	Assessment Methods	Grading Method	JCPP Skill(s) Assessed (1-6)	AACP Std. 11 & 12 (1-4)
1. Formulate patient-specific treatment plans for infectious diseases utilizing scientific, social and administrative, and clinical concepts.	1,2,4,6,7,9,10, 11,12,13,14,15	1	ES	1,2,3,4,5	1,4
2. Identify clinical presentation and relevant laboratory values of a patient with infectious disease(s).	1,3,7	1	ES	1,2	1,4
3. Identify clinically relevant pathogens involved in infectious diseases.		1	ES	1,2	1,4
4. Describe the pathophysiology of the respective infectious diseases.		1	ES		1,4
5. Evaluate antimicrobial therapeutics and their distinguishing characteristics, including mechanisms of action, spectrum of activity, drug interactions, and the adverse effects.	1,2,5,6,7,13	1	ES	1,2	1,4

Course Assessment Methods

	Assessment Method	Description
1	Final Exam Multiple Choice or Multiple Selection Question(s)	*Standard MCQ and select all that apply questions.*
2	Final Exam Open Ended Question(s)	*Short answer questions, matching/fill in the blank and hot spot questions.*
3	Comprehensive Case	
4	Skills Assessment	
5	OSCE	
6	Team Project	
7	Individual Project	
8	Oral Presentation	
9	Poster Presentation	
10	SOAP Note	

11	Reflection Essay	
12	Simulation	
13	Internship/Observation	
14	Other. Please specify:	

Grading Policy & Grade Calculation

Grades will be determined based on evaluation of individual and team readiness assessment tests (iRATs, tRATs), individual and team cumulative assessment tests (iCATs, tCATs), midterm examinations, final written examinations, skills assessments, graded application assignments, participation in team-based projects, peer evaluations and other assessment methods that may include, but not limited to, Objective Structured Clinical Examinations (OSCE). Examinations, RATs and CATs may consist of, but not limited to, multiple-choice, true/false, fill in the blank, short-answer, essay, and problem-based questions.

During the time the course is in progress, students whose cumulative course percentage falls below 70.0% may receive an academic alert and be subject to periodic course content review in special sessions with the course instructor(s). The student's faculty advisor may receive an academic alert to act upon on the student's behalf.

All examinations, tests, and assignments, including the final examination, may be **cumulative.** Students are responsible for material presented during the prior courses. The grading scale for all graded material is below. The final course grade will be assigned according to the calculated percentage and the percentages will not be rounded upward or downward. For additional information, see examination/assessment policy below.

Standard Grade Calculation*

iRATs/Other Individual Activities	5%
CAT 1	24%
CAT 2	24%
Final Exam	32%
tRATs	5%
Team Application(s)/Projects	10%
Total	**100%**

The final course letter grade will be determined according to the following grading scheme:

A	90 - 100 %
B	80 - 89.999 %
C	70 - 79.999 %
D	65.0 - 69.999 %
F	< 65.0 %

Top 200 Medications: The medications covered during this course include, but are not limited to:

Anti-Microbial	Antibiotic, Cephalosporin	Cefdinir	Omnicef
Anti-Microbial	Antibiotic, Cephalosporin	Cefuroxime	Ceftin
Anti-Microbial	Antibiotic, Cephalosporin	Cephalexin	Keflex
Anti-Microbial	Antibiotic, Fluoroquinolone	Ciprofloxacin	Cipro
Anti-Microbial	Antibiotic, Fluoroquinolone	Levofloxacin	Levaquin (Ophth: Quixin)
Anti-Microbial	Antibiotic, Fluoroquinolone	Moxifloxacin	Avelox (Ophth: Vigamox)
Anti-Microbial	Antibiotic, Lincosamide	Clindamycin	Cleocin
Anti-Microbial	Antibiotic, Macrolide	Azithromycin	Zithromax, Z-Pak, Tri-Pak (Ophth: AzaSite)
Anti-Microbial	Antibiotic, Macrolide	Clarithromycin	Biaxin, Biaxin XL
Anti-Microbial	Antibiotic, Macrolide	Erythromycin	Ery-Tab
Anti-Microbial	Antibiotic, Misc	Nitrofurantoin	Macrobid
Anti-Microbial	Antibiotic, Nitroimidazole (+ parasites)	Metronidazole	Flagyl
Anti-Microbial	Antibiotic, Penicillin	Amoxicillin	Amoxil
Anti-Microbial	Antibiotic, Penicillin	Amoxicillin +Clavulanate	Augmentin
Anti-Microbial	Antibiotic, Penicillin	Ampicillin	Principen
Anti-Microbial	Antibiotic, Penicillin	Penicillin VK	Veetids
Anti-Microbial	Antibiotic, Sulfa	Trimethoprim (TMP) + Sulfamethoxazole (SMZ)	Bactrim (Septra), Bactrim DS, (Septra DS)
Anti-Microbial	Antibiotic, Tetracycline	Doxycycline	Vibramycin
Anti-Microbial	Antibiotic, Tetracycline	Minocycline	Minocin, Dynacin
Anti-Microbial	Antifungal	Fluconazole	Diflucan
Anti-Microbial	Antifungal	Nystatin	Mycostatin
Anti-Microbial	Antiviral	Valacyclovir	Valtrex

PHAR 7582 Course Schedule

WEEK	DAY	TOPIC	Instructor	CLO	WSOP Category
1 (8/26)	M				
	T				
	W	Microbiology: Clinical Microbiology*	Cho	5	S15.01
	T	Pharmacology: Antibiotics*	Cho	3,5	S15.01
	F				
2 (9/2)	M				
	T				
	W	Pharmacotherapy: Beta-lactams*	Cho	5	S15.01
	T	**UT Tyler Career Success Conference 2019**			
	F				
3 (9/9)	M				
	T				
	W	Medicinal Chemistry: Beta-lactams*	Abdelaziz	5	S15.01
	T	Pharmacotherapy: Glycopeptides, Lipopeptides & Miscellaneous Antibiotics*	Cho	5	S15.01, S15.16
	F				
4 (9/16)	M				
	T				
	W	Pharmacotherapy: Microbial Protein Synthesis Inhibitors*	Cho	5	S15.01
	T	Medicinal Chemistry: Glycopeptides, Lipopeptides & Miscellaneous Antibiotics* Medicinal Chemistry: Microbial Protein Synthesis Inhibitors*	Abdelaziz	5	S15.01, S15.16
	F				
5 (9/23)	M				
	T				
	W	Pharmacotherapy: Folic Acid & Topoisomerase Inhibitors* Pharmacotherapy: Aminoglycosides*	Cho	5	S15.01, S15.16
	T	Medicinal Chemistry: Folic Acid & Topoisomerase Inhibitors* Medicinal Chemistry: Aminoglycosides* Pharmacotherapy: Summative Antibiotic Review	Abdelaziz Cho	5	S15.01, S15.16
	F				
6 (9/30)	M				
	T				
	W	Assessment (CAT #1)			
	T	Assessment Review (CAT #1) Pharmacotherapy: *C. difficile* Infection*	Cho	1-5	S15.08
	F				
7 (10/7)	M				
	T				
	W	Pharmacotherapy: Intra-abdominal Infection*	Yang	1-5	S15.08
	T	Pharmacotherapy: Urinary Tract Infection + Prostatitis*	Smith	1-5	S15.09
	F				
WEEK	**DAY**	**TOPIC**	**Instructor**	**CLO[1]**	**WSOP Category[7]**
8	M				
	T				

(10/14)	W	Pharmacotherapy: Upper Respiratory Tract Infection* Pharmacotherapy: Influenza*	Yang	1-5	S15.03
	T	Pharmacotherapy: Lower Respiratory Tract Infection*	Yang	1-5	S15.04
	F				
9 (10/21)	M				
	T				
	W	Pharmacotherapy: Central Nervous System Infection*	Cho	1-5	S15.02
	T	Pharmacotherapy: Skin, Bone & Joint Infections*	Smith	1-5	S15.06, S15.11
	F				
10 (10/28)	M				
	T				
	W	Pharmacotherapy: Infective Endocarditis*	Cho	1-5	
	T	Pharmacotherapy: STDs and Non-STDs*	Cho	1-5	S15.10
	F				
11 (11/4)	M				
	T				
	W	Pharmacotherapy: Comprehensive Case	Cho, Yang		
	T	Assessment (CAT #2)			
	F				
12 (11/11)	M				
	T				
	W	Assessment Review (CAT #2) Medicinal Chemistry: Tuberculosis*	Abdelaziz	1-5	S15.07
	T	Pharmacotherapy: Tuberculosis*	Smith	1-5	S15.07
	F				
13 (11/18)	M				
	T				
	W	Pharmacotherapy: Febrile Neutropenia*	Smith	1-5	
	T	Pharmacotherapy: Travel Medicine + Gastrointestinal*	Yang	1-5	
	F				
14 (12/2)	M				
	T				
	W	Pharmacotherapy: Spirochetal Diseases + Tickborne Illnesses*	Yang	1-5	
	T	Pharmacotherapy: Parasitic Diseases*	Cho	1-5	S15.18
	F				
15 (12/9)	Cumulative Final Exam (9:00 AM – 12:00 AM)				

Please note that dates, topics, and assignments are subject to change. In the event of a change, you will be given ample notification of the change.

*Indicates scheduled RATs; however, RATs can occur at any time under the discretion of the faculty.