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Lebanese International University

School of Pharmacy


Beirut – Bekaa Campuses

Fall Semester 2021 – 2022

PHAR615 – Pharmacotherapeutics V: Infectious Diseases

3 credits

Course Syllabus

Instructor	Campus	Sect	Room	Offered Time	Office hours	 Address
Dr. Fouad Sakr	Beirut	A	TBA	MW 8:00-9:15	TTh 8:00-9:00	fouad.sakr@liu.edu.lb
Dr. Fouad Sakr	Beirut	B	TBA	MW 9:30-10:45		fouad.sakr@liu.edu.lb
Dr. Fadi Hdeab	Beirut	C	TBA	TTh 08:00-09:15	MW	fadi.hdaib@liu.edu.lb
Dr. Fadi Hdeab	Beirut	D	TBA	MW 11:00-12:15	14:00-15:00	fadi.hdaib@liu.edu.lb
Dr. Nisreen Mourad	Bekaa	A	101-C	TTh 14:00-15:15	MW	nisreen.mourad@liu.edu.lb
Dr. Nisreen Mourad	Bekaa	B	101-C	MW 14:00-15:15	11:00-12:00	nisreen.mourad@liu.edu.lb

Course Coordinator: Dr. Fadi Hdeab

Department: Biomedical Sciences

Office: School of Pharmacy – Block A, GF

COURSE PREREQUISITE:

- PHAR505 (Pharmacology I)
- PHAR555 (Pharmacology II)
- PHAR580 (Pharmacy Practice Experience II)

REQUIRED BOOKS:

- Applied Therapeutics: The Clinical Use of Drugs; eleventh edition, edited by Caroline S. Zeind, Michael G. Carvalho; 2019.
- Pharmacotherapy: A Pathophysiologic Approach; 11th edition, edited by Joseph T. DiPiro, Gary C. Yee; 2019

COURSE DESCRIPTION:

The traditional practice of pharmacy has evolved over the past three decades from a practice primarily focusing on the preparation of medications to a practice primarily emphasizing on rational Pharmacotherapeutics. The need for selecting the most appropriate medication, regimen, and dose while minimizing problems such as drug interactions, adverse drug reactions, and IV incompatibilities has become central to this new patient focused approach.

Endemic and epidemic infectious diseases present a challenging field to pharmacists and other healthcare professionals. Infections caused by different pathogens in different areas of the body can lead to complications if left untreated. Pharmacists have an important role in this field to rationalize treatment, prevent the emergence of antibiotics resistance, and minimize cost.

COURSE OBJECTIVES:

This course aims to prepare the students to:

1. Differentiate between different types of infectious diseases.
2. Develop a patient care plan for both acute and chronic infections through selecting the appropriate pharmacological and non-pharmacological measures.
3. Evaluate the patient treatment outcomes and select appropriate alternative approaches when necessary.

INTENDED LEARNING OUTCOMES:

Upon the completion of the course, the student will be able to:

Domain 1: Foundational Knowledge

<u>1.1.1</u>	<ul style="list-style-type: none"> • Explain briefly the pathophysiology associated with infectious diseases. • Describe the acute and chronic infections’ signs, symptoms, and laboratory diagnostic tests. • Describe the modes of transmission of various infectious diseases. • Demonstrate satisfactory knowledge about antimicrobial prophylaxis.
<u>1.1.2</u>	<ul style="list-style-type: none"> • Assess patients’ treatment outcomes and prognosis.
<u>1.1.3</u>	<ul style="list-style-type: none"> • Review the patients’ laboratory and diagnostic tests according to the updated guidelines in order to select the non-pharmacological approach.
<u>1.1.4</u>	<ul style="list-style-type: none"> • Review the pharmacotherapy of different infectious diseases and individualize patient therapy accordingly.

1.1.6	<ul style="list-style-type: none"> Apply knowledge to make therapeutic decisions about antimicrobial agents taking into consideration the availability of alternative approaches.
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Domain 2: Pharmaceutical Care

<u>PLO</u>	<u>ILOs</u>
2.1.2	<ul style="list-style-type: none"> Recognize the importance of the different drug-drug, drug-disease and drug-food interactions that may affect therapeutic decisions among patients with acute and chronic infections.

Domain 3: Essentials for Practice and Care

3.1.1	<ul style="list-style-type: none"> Interpret patients' history and clinical manifestations.
3.1.2	<ul style="list-style-type: none"> Select the appropriate management based on the patients' subjective and objective data. Identify complications associated with inadequately treated infections.
3.1.3	<ul style="list-style-type: none"> Generate a therapeutic management plan based on updated pharmacological and non-pharmacological measures for a particular infection.
3.1.5	<ul style="list-style-type: none"> Interpret various patient and disease related factors to propose the most effective therapeutic options for acute and chronic infections.

Domain 4: Approach to Practice and Care

4.1.1	<ul style="list-style-type: none"> Identify the primary problems while selecting an antimicrobial regimen including allergies, age group, pregnancy, and drug resistance.
4.1.2	<ul style="list-style-type: none"> Explore multiple antimicrobial alternatives to solve identified problems.

TEACHING AND ASSESSMENT METHODS:

<u>ILOs</u>	<u>Learning Methods</u>	<u>Assessment Methods</u>
1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.1.6, 2.1.2, 3.1.1, 3.1.2, 3.1.3, 3.1.5, 4.1.1, 4.1.2	<ul style="list-style-type: none"> Lectures as PowerPoint presentations Group Case Discussions 	<ul style="list-style-type: none"> Midterm and Final Exam (MCQs) Graded rubric for group case discussions

COURSE DELIVERY METHODS:

1. The learning platform for this course is Google Classroom.
2. The instructor will post course material as PDF, Microsoft Word, or Microsoft PowerPoint to students on Google Classroom stream. All material for assignments, homework, or other course details will be posted as well.
3. The course will be delivered remotely using synchronous (live sessions according to course schedule) and asynchronous (recordings by voice-over-PowerPoint [VOPP]) methods.
4. Live sessions will be scheduled according to the time slot when the course is offered. VOPP recordings will be shared prior to class time to allow students to watch them at their own pace before live sessions.

COURSE ATTENDANCE REGULATIONS:

1. Attendance of live sessions is HIGHLY RECOMMENDED. Please try to join them to get maximal benefit from the course.
2. During live sessions, instructors will summarize recordings and highlight essential concepts to help you understand the material. They will also answer questions, create discussions, and perhaps do quizzes online.

ONLINE ETIQUETTE:

A code of conduct should be applied in remote education. Please note the following important etiquette for live sessions:

1. You are expected to join class on time.
2. Reduce noise by using earphones and the mute button, and minimize distractions from the surroundings as much as you can.
3. Please remember that the virtual class replaces the normal (physical) class. Accordingly, make sure to professionally join the class (adequate dress code, adequate seating, avoid eating, drinking, and disrupting activities).
4. The instructor will try to create an engaging, respectful, and meaningful learning environment. Please acknowledge that by participating in discussions, asking questions, and properly interacting in the session. Be ready to share, connect and engage with the class.
5. If you choose to communicate with the instructor via chat boxes, please use appropriate, professional, English language and double check your text for mistakes before posting it.
6. If assignments or homework are posted on Google Classroom, please make sure to post your work prior to deadlines.

CHEATING REGULATIONS:

1. Exams will be conducted on-campus in a computerized format.
2. Cheating during exams in any way or form, will not be tolerated and will be considered as evidence of academic dishonesty. Students will be referred to the grievance committee and an F will be posted on the exam.
3. Plagiarism: It is unacceptable to copy and pass off, as one's own the ideas or words of another without properly crediting the source. Turnitin, the university's designated plagiarism checker, may be used on any submitted written work. Instances of inappropriate or unacceptable academic behavior will be treated on a case-by-case basis with the consequences ranging from no credit on the assignment for those involved to automatic failure of or removal from the course. In addition, university administration may be notified.

MAKE-UP EXAMS:

- Makeup exams are not allowed and attending exams is obligatory.
- Make up exams are **ONLY** allowed in cases of:
 - a. Death of a first degree relative **ONLY**
 - b. Hospitalization with a valid hospital medical report: only hospital records are allowed.

GRADE DISTRIBUTION AND EXAM SCHEDULE:

Exam	Date	Time	Grade distribution
Midterm	Monday, November 15, 2021	13:00 – 14:00	40%
Case discussion	TBA	TBA	5%
Final Exam	Set by the university	TBA	55%

COURSE OUTLINE:

Week	Lecture number	Topic's details	Exams	Digital Tools	ILO's covered
1	1	Antimicrobial Prophylaxis in Surgery		Gamification (Matching Pairs)	1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.1.6, 2.1.2, 3.1.1, 3.1.2, 3.1.3, 3.1.5, 4.1.1, 4.1.2
1	2	Central Nervous System Infections		Case Studies	
2	2	Central Nervous System Infections			
2	3	Lower Respiratory Tract Infections		Case Studies + Gamification Quiz	
3	3	Lower Respiratory Tract Infections			
3	3	Lower Respiratory Tract Infections			
4	4	Upper Respiratory Tract Infections		Padlet	
4	4	Upper Respiratory Tract Infections			
5	5	Tuberculosis	Exam I	Gamification (Crossword)	
5	6	Bone and Joint Infections		Miro	
6	7	Skin and Soft Tissue Infections		Case Studies	
8	8	Gastrointestinal Infections		Flipped Classroom	
9	9	Infective Endocarditis		Gamification (Matching Pairs)	
10	10	Urinary Tract Infections and Prostatitis		Padlet	
11	11	Sexually Transmitted Infections		Case Studies	
12	12	Human Immunodeficiency Virus Infections		Miro	
13	13	Sepsis		Case Studies	
13	14	Febrile Neutropenia		Gamification (Crossword)	
14	15	Viral Infections		Flipped Classroom	
15	15	Viral Infections			

15	16	Invasive Fungal Infections	Final Exam	Gamification Quiz	
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