جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية الصيدلة
Faculty of Pharmacy

" عراقة وجودة"
"Tradition and Quality"

Course Plan for Bachelor Program - Study Plan Development and Updating Procedures/ Pharmacy Department	QF02/0408-4.0E

Study Plan No.	2021/2022		University Specialization		Bachelor of Pharmacy	
Course No.	0201433		Course Name		Pharmacology 3	
Credit Hours	3		Prerequisite *Co-requisite		Pharmaceutical Microbiology + Pharmacology (2)	
Course Type	☐ Mandatory University Requirement	☐ University Elective Requirement	☐ Faculty Mandatory Requirement	☐ Support course family requirements	☑ Mandatory Requirement	☐ Elective Requirement
Teaching Style	☐ Full Online Learning		☐ Blended Learning		☑ Traditional Learning	
Teaching Model	☐ 1 Synchronous: 1 Asynchronous		☐ 1 Face to Face: 1 Asynchronous		☑ 2 Traditional	

Faculty Member and Study Divisions Information *(to be filled in each semester by the subject instructor)*

Name	Academic rank	Office No.	Phone No.	E-mail	
Office Hours (Days/Time)	Sunday, Tuesday, Thursday ()		Monday, Wednesday ()		
Division number	Time	Place	Number of Students	Teaching Style	Approved Model
				Traditional Learning	2 Traditional

Brief Description

This course is designed to discuss the basic and clinical pharmacology of thyroid hormones and antithyroid drugs, gonadal hormones and their inhibitors, and chemotherapeutic drugs (antimicrobials and anticancer drugs). It will cover the pharmacodynamics, pharmacokinetics, and the clinical uses of those drugs.

Learning Resources

Course Book Information (Title, author, date of issue, publisher ... etc)	Lippincott Illustrated Reviews – Pharmacology; K. Whalen, C. Field, and R. Radhakrishnan; 7th Edition; 2019; Wolters Kluwer			
Supportive Learning Resources (Books, databases, periodicals, software, applications, others)	Basic & Clinical Pharmacology; B. G. Katzung; 14 Edition; 2018; McGraw-Hill Education			
Supporting Websites	-			
The Physical Environment for Teaching	☑ Classroom	☐ Labs	☑ Virtual Educational Platform	☐ Others
Necessary Equipment and Software	Moodle			
Supporting People with Special Needs	-			
For Technical Support	E-Learning & Open Educational Resources Center			

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Course learning outcomes *(K= Knowledge, S= Skills, C= Competencies)*

No.	Course Learning Outcomes	The Associated Program Learning Output Code
Knowledge		
The student should be able to:		
K1	Identify the mechanism of action of thyroid hormones and antithyroid drugs, gonadal hormones and their inhibitors, and chemotherapeutic drugs.	MK3
K2	Recognize the adverse reactions of drugs covered in this course.	MK3
K3	Discuss the absorption, distribution, metabolism, and excretion (ADME) of drugs covered in this course.	MK3
K4	Outline the clinical uses of drugs covered in this course.	MK3
Skills		
The student should be able to:		
S1	Relate the pharmacodynamics of drugs covered in this course to their clinical uses.	MS2
S2	Predict drug-drug interactions based on the pharmacodynamics and pharmacokinetics of drugs covered in this course.	MS2
Competencies		
The student should be able to:		
C1	Develop his/her professional and personal performance by continuously following-up lectures, submitting tasks on time, and staying up to date with the latest drug information.	MC3

Mechanisms for Direct Evaluation of Learning Outcomes

Type of Assessment / Learning Style	Fully Electronic Learning	Blended Learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm Exam	30%	30%	**30%**	0%
Participation / Practical Applications	0%	0%	**20%**	50%
Asynchronous Interactive Activities	20%	20%	**0%**	0%
Final Exam	50%	50%	**50%**	50%

Note 1: Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, and work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

Note 2: According to the Regulations of granting Master's degree at Al-Zaytoonah University of Jordan, 40% of final evaluation goes for the final exam, and 60% for the semester work (examinations, reports, research or any scientific activity assigned to the student).

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Schedule of Simultaneous / Face-to-Face Encounters and their Topics

Week	Subject	Learning Style*	Reference ** (Pages in Course Book)
1	Thyroid Hormones	Lecture	Chapter 23 306-308
2	Estrogens and Androgens	Lecture	Chapter 25 326-337
3	Principles of Antimicrobial Therapy	Lecture	Chapter 28 355-365
4	Cell Wall Inhibitors	Lecture	Chapter 29 368-381
5	Cell Wall Inhibitors	Lecture	Chapter 29 368-381
6	Protein Synthesis Inhibitors	Lecture	Chapter 30 384-397
7	Protein Synthesis Inhibitors	Lecture	Chapter 30 384-397
8	Quinolones, Folic Acid Antagonists, and Urinary Tract Antiseptics	Lecture	Chapter 31 400-410
9	Antimycobacterial Drugs **Midterm Exam**	Lecture	Chapter 32 413-420
10	Antifungal Drugs	Lecture	Chapter 33 423-433
11	Antiviral Drugs	Lecture	Chapter 34 436-451
12	Antiprotozoal Drugs	Lecture	Chapter 52 917-935 (Supportive Book)
13	Antihelminthic Drugs	Lecture	Chapter 53 938-946 (Supportive Book)
14	Anticancer Drugs	Lecture	Chapter 35 454-478
15	Anticancer Drugs	Lecture	Chapter 35 454-478
16	**Final Exam**	-	-

* Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.

** Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.

Schedule of Asynchronous Interactive Activities *(in the case of e-learning and blended learning)*

Week	Task / Activity	Reference	Expected Results
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