

Course Plan for Bachelor Program - Study Plan Development and Updating Procedures/ Pharmacy Department	QF02/0408-4.0E
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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
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
				Traditional Learning
				Approved Model
				2 Traditional

Brief Description

This course is designed to discuss the basic and clinical pharmacology of chemotherapeutic drugs (antimicrobial and anticancer drugs) and the pituitary, thyroid, and gonadal hormones and drugs. It also involves the pharmacodynamics, pharmacokinetics, and the clinical uses of the drugs covered in this course.

Learning Resources

Course Book Information (Title, author, date of issue, publisher ... etc)	Lippincott Illustrated Reviews – Pharmacology; K. Whalen, S. Lerchenfeldt, and C. Giordano; 8 th Edition; 2023; Wolters Kluwer
Supportive Learning Resources (Books, databases, periodicals, software, applications, others)	Basic & Clinical Pharmacology; B. G. Katzung; 14 th Edition; 2018; McGraw-Hill Education
Supporting Websites	https://www.uptodate.com/login
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 Email: elearning@zuj.edu.jo; Phone: +962 6 429 1511 ext. 425/362

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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 chemotherapeutic drugs (antimicrobial and anticancer drugs) and drugs for pituitary, thyroid, and gonads abnormalities along with their modulatory effect on the pathophysiology of relevant diseases.	MK3
K2	Discuss the absorption, distribution, metabolism, and excretion (ADME) of drugs covered in this course.	MK3
K3	Recognize the adverse reactions of drugs covered in this course.	MK3
K4	Outline the clinical uses of drugs covered in this course.	MK3
K5	Outline the principles of chemotherapy.	MK3
K6	Identify the mechanisms of antimicrobial resistance.	MK3
Skills		
The student should be able to:		
S1	Relate the pharmacodynamics and pharmacokinetics of drugs covered in this course to their clinical uses.	MS2
S2	Predict drug interactions based on the pharmacodynamics and pharmacokinetics of drugs covered in this course.	MS2
Competencies		
The student should be able to:		
C1	Analyze patient's health condition to determine possible therapeutic regimen and appropriate medication counseling.	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%	30%	60%
Asynchronous Interactive Activities	30%	30%	0%	0%
Final Exam	60%	60%	40%	40%

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).

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

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Week	Subject	Learning Style*	Reference ** (Pages in Course Book)
1	Principles of Antimicrobial Therapy	Lecture	Chapter 28 421-436
2	Cell Wall Inhibitors	Lecture	Chapter 29 437-454
3	Cell Wall Inhibitors	Lecture	Chapter 29 437-454
4	Protein Synthesis Inhibitors	Lecture	Chapter 30 455-471
5	Protein Synthesis Inhibitors	Lecture	Chapter 30 455-471
6	Quinolones, Folic Acid Antagonists, and Urinary Tract Antiseptics	Lecture	Chapter 31 472-485
7	Antimycobacterial Drugs Midterm Exam	Lecture	Chapter 32 486-495
8	Antifungal Drugs	Lecture	Chapter 33 496-509
9	Antiprotozoal Drugs	Lecture	Chapter 35 529-544
10	Anthelmintic Drugs	Lecture	Chapter 36 545-552
11	Antiviral Drugs	Lecture	Chapter 34 510-528
12	Anticancer Drugs	Lecture	Chapter 37 553-582
13	Anticancer Drugs	Lecture	Chapter 37 553-582
14	Pituitary and Thyroid	Lecture	Chapter 23 355-366
15	Estrogens, Progestogens, and Androgens	Lecture	Chapter 25 385-400
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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