

Course Plan for Bachelor Program - Study Plan Development and Updating Procedures/ Pharmacy Department	QF02/0408-4, E
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Study Plan No.	2021/2022	University Specialization	Bachelor of Pharmacy
Course No.	0201381	Course Name	Pharmacology (2)
Credit Hours	3	Prerequisite *Co-requisite	Pharmacology (1)
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)

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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
				Blended Learning	1 Face to Face: 1 Asynchronous

Brief Description

This course is designed to discuss the basic and clinical pharmacology of drugs for hyperlipidemia, anticoagulant and antiplatelet agents, and drugs affecting the central nervous system and the endocrine system. 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; 8th Edition; 2023; Wolters Kluwer			
Supportive Learning Resources (Books, databases, periodicals, software, applications, others)	Basic & Clinical Pharmacology; B. G. Katzung; 14th 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.			

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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 drugs for hyperlipidemia, anticoagulant and antiplatelet agents, and drugs affecting the central nervous system and endocrine system 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
Skills		
The student should be able to:		
S1	Relate the pharmacodynamics and pharmacokinetics of drugs covered in this course to the 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	40%	40%	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

Week	Subject	Learning Style*	Reference **
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			(Course book pages)
1	Anticoagulant and Antiplatelet agents	Lecture	193-214
2	Drugs for Hyperlipidemia	Lecture	215-230
3	Drugs for neurodegenerative diseases: Parkinson disease	Lecture	231-240
4	Drugs for neurodegenerative diseases: Alzheimer disease	Lecture	240-242
5	Anxiolytic and hypnotic drugs	Lecture	248-262
6	Anesthetics	Lecture	302-322
7	Antidepressants	Lecture	263-270
8	Antidepressants	Lecture	271-275
9	Antipsychotic drugs	Lecture	276-286
10	Drugs for Epilepsy	Lecture	287-301
11	Drugs for Epilepsy Midterm Exam	Lecture	287-301
12	Opioids		323-340
13	Adrenal hormones	Lecture	401-410
14	Drugs for diabetes mellitus	Lecture	367-374
15	Drugs for diabetes mellitus	Lecture	375-381
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
1	Watch a recorded lecture on dyslipidemia	Video on the E-learning platform	Answer questions embedded in the video
2	Watch a recorded lecture on blood coagulation	Video on the E-learning platform	Answer questions embedded in the video
3	Assigning groups and topics for the multimedia presentation	-	Students will be divided into groups and each group will work on a topic for the presentation
4	Assignment (1) – drugs still in the discovery pipeline of Alzheimer's disease	Assignment on the E-Learning platform	Assignment marked out of 5
5	Watch a recorded lecture on anxiolytic sedative, hypnotic drugs	Video on the E-learning platform	Answer questions embedded in the video
6	Online meeting for student groups to work on the presentation	-	A group representative will report progress to the instructor
7	Watch a recorded lecture on antidepressant drugs	Video on the E-learning platform	Answer questions embedded in the video
8	Online meeting for student groups to	-	A group representative

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	work on the presentation		will report progress to the instructor
9	Midterm Exam	-	-
10	Watch a recorded lecture Assignment (2) - Epilepsy	Video and assignment on the E-learning platform	Assignment marked out of 5
11	Online meeting for student groups to work on the presentation	-	A group representative will report progress to the instructor
12	Online meeting for student groups to work on the presentation	-	A group representative will report progress to the instructor
13	Group presentations	-	Presentations marked out of 20
14	Group presentations	-	Presentations marked out of 20
15	Group presentations	-	Presentations marked out of 20
16	Final Exam		