

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.	0201371	Course Name	Dispensing Lab.
Credit Hours	1	Prerequisite *Co-requisite	Pharmaceutical Dosage Forms (1) + *Pharmaceutical Dosage Forms (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	☒ 1 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
				Traditional Learning	1 Traditional

Brief Description

This practical course is designed to introduce the students to the principles and procedures involved in bench scale compounding and dispensing of pharmaceutical dosage forms such as suspensions, emulsions, creams, ointments, pastes, gels, and suppositories. In addition to the practical skills, the students will develop an appreciation for patient education by writing a clear and concise label depicting the use and storage of dispensed medications.

Learning Resources

Course Book Information (Title, author, date of issue, publisher ... etc)	Pharmaceutics and Compounding lab manual.			
Supportive Learning Resources (Books, databases, periodicals, software, applications, others)	1.Aulton's Pharmaceutics; The Design and Manufacture of Medicines, by: M.E. Aulton and K.M.G. Taylor. Sixth Edition. 2022. Elsevier Limited. 2.Pharmaceutical Practice; by: J.A. Rees, I. Smith and J. Watson. Fifth Edition. 2014. Churchill Livingstone.			
Supporting Websites				
The Physical Environment for Teaching	☐ Class room	☒ 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: clearning@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	Differentiate between the different types of pharmaceutical dosage forms (solid, semi-solid, and liquid).	MK2
K2	Recognize the uses, packaging, labeling, and storage requirements of extemporaneously compounded pharmaceutical dosage forms.	MK2
Skills		
The student should be able to:		
S1	Carry out the calculations needed to prepare different types of pharmaceutical dosage forms.	MS4
S2	Apply the appropriate compounding procedures to prepare liquid (suspensions and emulsions), semi-solid (creams, ointments, gels, and pastes), and solid (suppositories) dosage forms.	MS4
S3	Write an accurate label for compounded preparations including the use of the preparation, dosing frequency, special instructions and precautions, and proper storage conditions.	MS4

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).

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

Week	Subject	Learning Style*	Reference **
1	Check-in: Laboratory instructions and introduction to extemporaneous compounding	Lecture	Lab Manual
2	Suspensions	Lecture, practical learning	Lab Manual, video on E-Learning platform
3	Emulsions part 1	Lecture, practical learning	Lab Manual, video on E-Learning platform
4	Emulsions part 2	Lecture, practical learning	Lab Manual, video on E-Learning platform
5	Ointments	Lecture, practical learning	Lab Manual, video on E-Learning platform
6	Creams part 1	Lecture, practical learning	Lab Manual, video on E-Learning platform
7	Creams part 2	Lecture, practical learning	Lab Manual, video on E-Learning platform
8	Pastes	Lecture, practical learning	Lab Manual, video on E-Learning platform
9	Gels	Lecture, practical learning	Lab Manual, video on E-Learning platform
10	Suppositories part 1	Lecture, practical learning	Lab Manual, video on E-Learning platform
11	Suppositories part 2	Lecture, practical learning	Lab Manual, video on E-Learning platform
12	Cosmetic preparations	Lecture, practical learning	Lab Manual, video on E-Learning platform
13	Final exam (practical)	-	-
14	Check-out		
15			
16	Final Exam (theoretical)		

* 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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