



كلية الصيدلة - جامعة الزيتونة الأردنية  
Faculty of Pharmacy  
Al-Zaytoonah University of Jordan  
" نحو تعليم صيدلاني متميز "

Toward Excellence in Pharmaceutical  
Education

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



"Tradition and Quality"

<b>Detailed Course Description - Course Plan Development and Updating Procedures/ Pharmacy Department</b>	<b>QF02/0408-3.0E</b>
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Faculty	Pharmacy	Department	Pharmacy
<b>Course number</b>	0201222	Course title	Pharmaceutics 2
Number of credit hours	2	Pre-requisite/co-requisite	Pharmaceutics 1

### Brief course description

Provide students with knowledge about different dosage forms, their formulations, packaging, labelling and storage.

Course goals and learning outcomes	
<b>Goal 1</b>	To introduce students to the liquid and semisolid dosage forms
Learning outcomes	1.1 Know the importance of solutions as liquid dosage forms, know the additives used in solution formulations, understand common problems associated with solution preparation. 1.2 Know the importance of suspension as liquid dosage forms, know the additives used in suspension formulations, understand common problems associated with suspension preparation. 1.3 Know the importance of emulsions as semisolid dosage form, know the additives used in emulsion formulations and understand common problems associated with emulsions preparation.
<b>Goal 2</b>	To introduce students to solid dosage forms such as tablets, capsules, powders and granules.
Learning outcomes	2.1 Know the importance of tablets as solid dosage forms, know the additives used in their formulations. 2.2 Know the importance of capsules as solid dosage forms, know the additives used in their formulations. 2.3 Know the importance of powders and granules as solid dosage forms and know the additives used in their formulations.
<b>Goal 3</b>	To introduce students to packaging, labelling and storage of different dosage forms
Learning outcomes	3.1 Know the importance of packaging and the different types of packaging materials. 3.2 Know the importance of labelling of different types of dosage forms. 3.3 Know the different storage conditions of different dosage forms.
<b>Textbook</b>	1. Aulton's Pharmaceutics; The Design and Manufacture of Medicines, by: M. E. Aulton. Third Edition. 2013. Churchill Livingstone.



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	2. Modern Pharmaceutics, vol.2, Applications and advances, A.T. Florence and J. Siepmann, 5th edn., 2009, Informa Healthcare
<b>Supplementary references</b>	2. United States Pharmacopiea, 2010. 3. British Pharmacopiea, 2010. 4. Remingtons; Pharmaceutical Sciences, 2006.

**Course timeline**

Week	Number of hours	Course topics	Pages (textbook)	Notes
01	2	Definitions of some pharmaceutical dosage forms and drug delivery systems.	Ch. 1	
02	2	Definitions of some pharmaceutical dosage forms and drug delivery systems.	Ch. 1	
03	2	Solutions: Advantages and disadvantages as dosage form, some solvents used in preparation of aqueous solutions, classifications and examples.	Ch. 25	
04	2	Solutions: Advantages and disadvantages as dosage form, some solvents used in preparation of aqueous solutions, classifications and examples.	Ch. 25	
05	2	Suspensions: Factors affecting sedimentation rate, types of thickening agents, flocculated and deflocculated suspensions, preparation and evaluation.	Ch. 26	
06	2	Suspensions: Factors affecting sedimentation rate, types of thickening agents, flocculated and deflocculated suspensions, preparation and evaluation.	Ch. 26	
07	2	Emulsions: Pharmaceutical applications, types, surfactants, methods of preparation and special problems.	Ch. 27	
08	2	Emulsions: Pharmaceutical applications, types, surfactants, methods of preparation and special problems.	Ch. 27	
09	2	Emulsions: Pharmaceutical applications, types, surfactants, methods of preparation and special problems.	Ch. 27	
10	2	Oral unit dosage forms: Tablets and capsules (soft gelatin and hard gelatin).	Ch. 31, 35	
11	2	Oral unit dosage forms: Tablets and capsules (soft gelatin and hard gelatin).	Ch. 31, 35	
12	2	Packaging, storage and stability of medicine	Ch. 42	
13	2	Packaging, storage and stability of medicine	Ch. 42	



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<b>14</b>	<b>2</b>	Labeling of dispensed medicines	<b>Ch. 28</b>	
<b>15</b>	<b>2</b>	Storage of medicines and waste disposal	<b>Ch. 43</b>	
<b>16</b>	<b>1</b>	<b>Final exam</b>		

<b>Theoretical course evaluation methods and weight</b>	First exam 25% Second exam 25% Final exam 50%	<b>Practical (clinical) course evaluation methods</b>	N/A
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<b>Approved by head of department</b>		<b>Date of approval</b>	
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Extra information (to be updated every semester by corresponding faculty member)

<b>Name of teacher</b>	Dr. Nouf Mahmoud	<b>Office Number</b>	228
<b>Phone number (extension)</b>	312	<b>E-mail</b>	<a href="mailto:nouf.mahmoud@zuj.edu.jo">nouf.mahmoud@zuj.edu.jo</a>
<b>Office hours</b>	Sun, Tue: 11-12 Mon, Wed: 12:30-2:00 Thu: 12-1		