

**COURSE DESCRIPTIONS**

<b>Faculty</b>	Pharmacy				
<b>Department</b>	Pharmacy	<b>NQF level</b>	5		
<b>Course Title</b>	Pharmaceutical Dosage Forms (1)	<b>Code</b>	901341	<b>Prerequisite</b>	901215
<b>Credit Hours</b>	2	<b>Theory</b>	2	<b>Practical</b>	-
<b>Course Leader</b>	Assoc.Professor. Dr. Ahmed Rifaat	<b>email</b>	Ahmed.ga@jadara.edu.jo		
<b>Lecturers</b>	Assoc.Professor. Dr. Ahmed Rifaat	<b>emails</b>	Ahmed.ga@jadara.edu.jo		
<b>Lecture time</b>		<b>Classroom</b>			
<b>Semester</b>		<b>Production</b>		<b>Updated</b>	
<b>Awards</b>				<b>Attendance</b>	Fulltime

**Short Description**

This course is designed to introduce the students to the pharmaceutical principles behind the design and formulation of different liquid pharmaceutical preparations, such as solutions, diffusion, coarse dispersions, and colloidal systems. These principles will lay the foundation for dosage form design and manufacture, as well as biopharmaceutics and pharmacokinetics.

**Course Objectives**

- To introduce students to the principles behind the preparation of pharmaceutical solutions
- To familiarize students with the coarse dispersions
- To introduce students to the various characterizations of colloids

**Learning Outcomes**

**A. Knowledge - Theoretical Understanding**

- A1. relate quality control of liquid dosage forms and Describe the major types of dosage forms, their different intend, design and formulations.
- A2. explain the principles of physical pharmacy and the physicochemical prosperities of the drugs.

**B. Knowledge - Practical Application**

- A3. show different types of liquid dosage forms preparation.

**C. Skills - Generic Problem Solving and Analytical Skills**

- B1. Analyze novel problems and plan strategies for dosage forms preparations and Identify liquid categories of dosage forms .

**D. Skills - Communication, ICT, and Numeracy**

- B2. Explain different liquid dosage forms

**E. Competence: Autonomy, Responsibility, and Context**

C1. Adapt information for preparation of liquid dosage forms .
<b>Teaching and Learning Methods</b>
<ul style="list-style-type: none"> <li>• Lectures.</li> <li>• Research projects and information collection.</li> <li>• discussion during lectures and tutorial</li> <li>• self-learning (presenting scientific proposal )</li> </ul>
<b>Assessment Methods</b>
quizzes, mid exam, Final exam

Course Contents					
Week	Hours	CLOs	Topics	Teaching & Learning Methods	Assessment Methods
.1	3	A1, b1	Introduction to liquid dosage forms	Lectures, Research projects and information collection. discussion during lectures and tutorial self-learning (presenting scientific proposal )	Assignments , Mid and final exams
.2	3	B1,a1	aqueous solutions, types, enhancement of solubility	Lectures, Research projects and information collection.	Assignments , Mid and final exams
.3	3	A1,b1	Non-aqueous solutions	discussion during lectures and tutorial self-learning (presenting scientific proposal )	Assignments , Mid and final exams
.4	3	A1, b1	colloids	Lectures, Research projects and information collection.	Assignments , Mid and final exams
.5	3	A2, b1	colloids	discussion during lectures and tutorial self-learning (presenting scientific proposal )	Assignments , Mid and final exams
.6	3	A2, b2	Colloids	Lectures, Research projects and information collection.	Assignments , Mid and final exams
.7	3	A3,B2	suspensions	discussion during lectures and tutorial self-learning (presenting scientific proposal )	Assignments , Mid and final exams
.8	3	A3,C1	suspensions	Lectures, Research projects and information collection.	Assignments , Mid and final exams
.9	3	A3,b2	suspensions	discussion during lectures and tutorial self-learning (presenting scientific proposal )	Assignments , Mid and final exams
.10	3	A3,b2	emulsions	Lectures, Research projects and information collection.	Assignments , Mid and final exams
.11	3	A3,b2,c1	emulsions	discussion during lectures and tutorial self-learning (presenting scientific proposal )	Assignments , Mid and final exams

Infrastructure	
<b>Textbook</b>	a) Textbook of Pharmaceutical Dispensing, Goyal and Amit, 2018. b) Ansel's pharmaceutical dosage forms and drug delivery systems, Allen and Loyd, 2016. c) A. Martin. Physical Pharmacy. Forth edition. Lea & Febiger, Philadelphia, London, 2018.
<b>References</b>	a) M.E. Aulton. Pharmaceutics: The science of dosage form design. Churchill Living Stone, 1996. b) Bentley's textbook of pharmaceutics.

<b>Required reading</b>	
<b>Electronic materials</b>	lectures
<b>Other</b>	

<b>Course Assessment Plan</b>								
	<b>Assessment Method</b>	<b>Grade</b>	<b>CLOs</b>					
			<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>B1</b>	<b>B2</b>	<b>C1</b>
	<b>First (Midterm)</b>	30	10	5		10	5	
	<b>Second (if applicable)</b>							
	<b>Final Exam</b>	50	5	10	10	5	10	10
	<b>Coursework</b>							
<b>Coursework assessment methods</b>	Assignments							
	Case study							
	Discussion and interaction							
	Group work activities							
	Lab tests and assignments							
	Presentations							
	Quizzes	20	5	5		5	5	
	<b>Total</b>	100	20	20	10	20	20	10

<b>Plagiarism</b>
<p>Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code). Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.</p>