



**Jerash University  
Faculty of Pharmacy**

20xx/20xx

**Course Syllabus**

<b>Course Title:</b> Pharmaceutics 2	<b>Course code:</b> 1101323
<b>Course Level:</b> 3d	<b>Course prerequisite :</b> pharmaceutics 1
<b>Lecture Time:</b>	<b>Credit hours:</b> 2 hours

**Academic Staff**

**Specifics**

<b>Name</b>	<b>Rank</b>	<b>Office Number and Location</b>	<b>Office Hours</b>	<b>E-mail Address</b>
<b>Dr. Shadi Gharaibeh</b>	<b>Asst. Prof.</b>	<b>409</b>	<b>TBA</b>	<b>TBA</b>

**Module description:**

At this level, the student will be familiar with the a lot of dosage forms , their formulation and factors affecting the release of drug from such novel traditional dosage forms, rectal and vaginl dosage forms will be incorporated and introduction to the new trends in the delivery of dosage forms will be introduces.

**.Module objectives:**

The course aims at:

1. Familiarizing the students with the suppository dosage forms and inserts, their properties, composition, preparation, mechanism of absorption and applications.
2. Familiarizing the students with pharmaceutical aerosols, their properties, composition, preparation, and applications.
3. Introduce the student to different routes of administration of drugs including parenteral and ocular drug delivery systems

## Teaching methods:

**Lectures (interactive; group discussion)**

## Learning outcomes:

At the end of this module, student will be able to:

1. Define and explain the rationale of each dosage form.
2. Understand the physicochemical properties of each dosage form.
3. Explain and illustrate the various materials used in formulation of each dosage form.
4. Understand and practice the different methods of compounding of each dosage form.
5. To develop knowledge of the fundamental physicochemical properties of drugs and assess their role and applications in solution dosage forms.

## Assessment instruments

- Short reports and/ or presentations, and/ or Short research projects
- Quizzes.
- Home works
- Final examination: 50 marks

<u>Allocation of Marks</u>	
<b>Assessment Instruments</b>	<b>Mark</b>
First examination	<b>20%</b>
Second examination	<b>20%</b>
Final examination: 40 marks	<b>40%</b>
Reports, research projects, Quizzes, Home works, Projects	<b>20%</b>
Total	<b>100%</b>

## Course/module academic calendar

<b>week</b>	<b>Basic and support material to be covered</b>
<b>(1-3)</b>	<b>1.</b> Rectal and Vaginal Dosage Forms a) Rectal drug delivery b) Vaginal drug delivery c) Formulation of rectal and vaginal dosage forms
<b>(4-5)</b>	<b>2.</b> Pharmaceutical Aerosols a) Properties and definitions b) Aerosol packaging components c) Formulation of pharmaceutical aerosols d) Manufacturing and testing of aerosols

	e) Advantages and disadvantages of aerosols
(6-8)	3-Transdermal drug delivery system
(9-11)	4- Ocular drug delivery system
(12-15)	5- Sterile products and validation of sterility

**Expected workload:**

**On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.**

**Attendance policy:**

**Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.**

**Module references:**

**Text book:**

- 1. Martin's Physical Pharmacy and Pharmaceutical Sciences** By : Patrick J. Sinko, Lippincott Williams & Wilkins , 2011, 6<sup>th</sup> Edition
- 2. Aulton's Pharmaceutics The Design and Manufacture of Medicines**, Edit.: Michael E. Aulton & Kevin M. G. Taylor, Pub.: Churchill Livingstone, 4<sup>th</sup> edition, 2013.
- 3. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems** by Loyd V. Allen, Jr. & Howard C. Ansel, Lippincott Williams & Wilkins 10<sup>th</sup> Edition ,2014

*In addition to the above, the students will be provided with handouts by the lecturer.*

