



**Jerash University  
Faculty of pharmacy**

**Course Syllabus**

<b>Course Title:</b> Advanced pharmaceutical technology lab	<b>Course code:</b> 1101544
<b>Course Level:</b> five year	<b>Course prerequisite (s) and/or co requisite(s):</b> Advanced pharmaceutical technology lab
<b>Lecture Time:</b> M (12-2) W (12-2)	<b>Credit hours:</b> 1 hour

**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>Shadi Gharaibeh</b>	<b>doctor</b>	<b>Faculty of Pharmacy</b>		shadi_gharaibeh@hotmail.com
<b>Haneen Qudah</b>	<b>Instructor</b>	<b>Faculty of Pharmacy</b>		Alqudah_haneen@yahoo.com

**Course module description:**

This pharmacy practice lab focuses on a number of areas of interest in the fields of pharmacy practice and pharmaceutical care. These areas include: parenteral dosage forms, kinetic degradation of drugs. In addition it reinforces pharmacy practice skills related to patient care in a pharmacy setup in areas of communication with physicians, handling pharmacy errors, construction of patient charts, drug therapy problems, literature search, patient counseling, and vital signs assessment.

**Course module objectives:**

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

1. Air quality classes required to clean area and buffer area  
.....
2. Doing the calculations required to know order of reaction and  
.....  
Calculate different types of density
3. ....

**Course/ module components:**

- **Books (title , author (s), publisher, year of publication)**
  1. United States Pharmacopoeia – National formulary, 2006
  2. British Pharmacopoeia, 2005

**References:**

1. WebMD: <http://www.webmd.com/>; free
  2. PubMed: <http://www.ncbi.nlm.nih.gov/pubmed/>; free
- **Support material.**
  - **Study guide.**
  - **Homework and laboratory guide.**

**Teaching methods:**

Practical experimental work

**Learning outcomes:**

**Interactive learning by participating the student into the lab work content.**

- Communication skills (personal and academic).

**Review concept at office hours**

- Practical and subject specific skills (Transferable Skills).

**Doing homework and simple reports.**

**Assessment instruments**

Short reports and/ or presentations, and/ or Short research projects

- Quizzes.
- Home works
- Final examination: 40 marks

<b><u>Allocation of Marks</u></b>	
<b>Assessment Instruments</b>	<b>Mark</b>
Midterms examination	<b>20</b>
Project/assignment / Reports / Quizes	<b>40</b>
Final examination: 50 marks	<b>40</b>
Total	<b>100</b>

## **Documentation and academic honesty**

- Documentation style (with illustrative examples)
- Protection by copyright
- Avoiding plagiarism.

## **Course/module academic calendar**

<b>week</b>	<b>Basic and support material to be covered</b>
(1)	Check in
(2)	introduction
(3)	Sterile dosage forms and equipment utilized for sterile compoundingg
(4)	Professional cleansing and garbing before pharmaceutical handling of sterile products
(5)	Aseptic technique used in pharmaceutical preparation and mixing of sterile products
(6)	Kinetic degradation of drugs I
(7)	Midterm examination
(8)	Kinetic degradation of drugs II Effect of heat
(9)	Milling and Micromeritics
(10)	Determination of moisture content of powders
(11)	Preparation of microspheres by emulsion gelation using thermal manipulation method
(12)	Preparation of microcapules by pan coating method
(13)	Evaluation of primary literature sources in pharmaceutical technology
(14)	Final examination

## **Expected workload:**

**On average students need to spend 1 hours of study and preparation for each 50-minute lecture/tutorial.**

## **Attendance policy:**

**Absence from 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**

### **Books**

1. USP DI: Drug information for the health care professional, 1998
2. Remington's pharmaceutical sciences, 1985