



**Hashemite University**  
**Faculty of Pharmaceutical Sciences**  
**Department of Pharmaceutics and Pharmaceutical Technology**

Semester: 1<sup>st</sup> semester

Year: 2025/2026

Course Information	
Course Title	Industrial Pharmacy (1) practical
Course Number	131701437
Credit Hours	1
Prerequisites	Industrial Pharmacy (1) 131701436

Instructor	
Name	MS.C Eqbal Abu-alkebash
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Course Description
The experiments in this course cover the pharmaceutical powder technologies (size analysis and reduction, as well as mixing, powder flow and granulation). The course also covers the manufacturing and quality requirements for tablet dosage forms.
Course Objectives
This course tends to give student practical skills about the covered experiments. These experiments are related to manufacturing and quality evaluation of the pharmaceutical products.
Intended Learning Outcomes
<b>Successful completion of this course should lead to the following learning outcomes :</b> <ul style="list-style-type: none"><li>- Student will be capable to recognize and operate the manufacturing machines that he uses in the lab.</li><li>- Student will be capable to do the procedures for the experiments by himself.</li><li>- Student will be capable to do the calculations and drawing related to the experiments and write the report in a clear manner.</li><li>- Student should be able to analyze and discuss the experimental results and get the conclusions.</li></ul>

### Reading List

1	Aulton M., Taylor Kevin (ed.), Aulton's Pharmaceutics The design and Manufacture of Medicine, Elsevier, 4th edition, 2013.
2	Khar RK, Vyas SP, Ahmad FJ, Jain GK (2013). Lachman/liebermans: The Theory and Practice of Industrial Pharmacy. 4 <sup>th</sup> edition Cbs Publishers & Distributors.
3	Remington: The Science and Practice of Pharmacy, LIPPINCOTT WILLIAMS & WILKINS, 21 <sup>th</sup> ed, 2006.

Topic	Date	Week	Topic Details	Estimated no. of hours	Assessment
1	5/10-9/10	1	<b>Introduction, General Instructions and Laboratory Safety Rules</b>	1	-----
2	12/10-16/10	2	<b>Powder Mixing</b>	2	Report Evaluation
3	19/10-23/10	3	<b>Particle size reduction &amp; Particle Size Analysis By Sieving</b>	2	Report Evaluation
4	26/10-30/10	4	<b>Granulation Of Powders</b>	2	Report Evaluation Quiz
	2/11-6/11	5	<b>Off week (First Exam duration )</b>		
5	9/11-13/11	6	<b>Characterization Of Granules and Powder</b>	2	Report Evaluation
6	16/11-20/11	7	<b>Effect Of Additives On The Physical Properties Of Granules and powder</b>	2	Report Evaluation Quiz
7	23/11-27/11	8	<b>Formulation and Characterization of an Effervescent Granules</b>	2	Report Evaluation Quiz
8	30/11-4/12	9	<b>Tablets</b>	2	Report Evaluation
9	7/12-11/12	10	<b>Quality Control Of Tablets / part 1</b>	2	Report Evaluation
10	14/12-18/12	11	<b>Quality Control Of Tablets / part 2</b>	2	Report Evaluation Online Quiz
	28/12-31/12	13	<b>Theoretical Final Exam</b>		

<i>Assessment Method</i>	<i>% of Final Grade</i>	<i>Due Date</i>
Laboratory Quizzes	20%	To be announced (3 quiz in lab + 1 quiz online)
Laboratory Reports	25%	Every week
In lab performance	15%	Every week
Theoretical Final exam	40%	To be announced

### **Important regulations**

- ◆ On average, students need to spend 2 hrs of study and preparation weekly.
- ◆ Excellent attendance is expected. According to the university policy, students who miss more than 15% of the lecture hours with or without excuse will be dismissed from the course
- ◆ At the beginning of the lectures, be on time and don't leave before the end of the lecture without an accepted excuse
- ◆ If you missed a class, it is your responsibility to find out about any announcements or assignments you have missed
- ◆ For any clarification, please communicate your instructor at his posted office hours or by appointment
- ◆ Switch off your mobile or keep it silent throughout the lecture
- ◆ Listen well to the lecture and avoid side discussions, if you have a question, ask your instructor and not your colleague
- ◆ If you have any information, document your reference, if you didn't, then you broke the intellectual property rights law and the law will be applied
  - For more informations, visit the website:
    - <http://www.plagiarism.org/>
- ◆ Exams are scheduled to be given three times throughout the semester, your are expected to attend all. If not, make-up exams will be offered for valid reasons. It may be different from regular exams in content and format.
- ◆ Cheating, academic diconduct, fabrication and plagiarism will not be tolerated, and the university policy will be applied

**Last updated on 12 /10 /2025 by : Msc. Eqbal Abu-alkebash**