UNIVERSITY OF BASRA COLLEGE OF PHARMACY

DEPARTMENT OF PHARMACEUTICS

PRACTICAL INDUSTRIAL PHARMACY-II

5th stage/ 1st semester

1 Introduction:

This laboratory is designed to develop the skills of the pharmacy students to manufacture and evaluate the common dosage forms in large scale. This laboratory integrates and consolidates knowledge that the students would achieve during the industrial pharmacy lectures, this year and the year before. In this lab, the students will examine and practice the manufacturing approaches of certain dosage forms (e.g., tablets) in addition to the quality control approaches of these dosage forms

2 Objectives:

By the end of industrial pharmacy-II laboratories, alongside with lectures in industrial pharmacy, the 5th stage students should be able to:

1. Show a good fundamental understanding of manufacturing approaches of tablet dosage forms.
2. Critically evaluate and understand the formulation requirements and how these factors affect choosing the formulation processes of tablets and the final form.
3. Thorough understanding of the quality control requirements for different dosage forms
4. Full understanding of how to comply with the pharmacopeial requirements.

3 Assessment:

Industrial pharmacy laboratory is run as a 2 hours weekly practical session. This lab's total mark contributes a **25%** of the final industrial pharmacy-II module. The assessment consists of a final report and presentation, weekly quizzes, final collective exam, weekly report, weekly oral exam and technique assessment.

Weakly quizzes	=6%
Collective quiz	=6%
Final Report and presentation	=5%
Weekly oral exam and technique assessment	=5%
Weekly report	=3%
Total	= 25%

4 Final reports and presentations:

The title for each student will be allocated by the first month of the 1st semester. A 1000-word report should be submitted by ***1st, Dec., of this academic year***. The time table for presentations would be scheduled during the course.

5 Study materials:

The study materials, updates, and announcements would be available on the link below:

http://1drv.ms/1G6rDwh

6 Recommended text for further study:

1. USP current edition
2. BP current edition
3. Aulton's Pharmaceutics, 3rd Edition, The Design and Manufacture of Medicines, M.E.Aulton, Churchill Livingstone, 2007.
4. Ansel's Pharmaceutical dosage forms and drug delivery systems, 8th Edition, LV Allen, NG Popovich and HC Ansel, Lippincott, Williams and Wilkins.
5. The Theory and Practice of Industrial Pharmacy, 3rd Edition L Lachman, HA Lieberman and J Kanig, Lea and Febiger, 1986.

7 Lab Time table and lab titles:

Title	**week #**	
Introduction to all dosage forms	WK1	
Tablets manufacturing and direct compression Preparation of metronidazole via direct compression	WK2	

Wet granulation, dry granulation	WK3	
Preparation of sodium bicarbonate tablets via dry & wet granulation method	WK4	
Quality control of tablets	WK5	
Thickness test, weight variation test, hardness test friability test	WK6	
Content uniformity test for atenolol or paracetamol using a spectrophotometric method.	WK7	
Capsule evaluation test	WK8	
Disintegration test of capsules, dissolution and weight variation	Wk9	
Tests for parenteral preparation	**Wk10**	