Physical Pharmacy
PHR 211

Laboratory Notes

Student Name:

Student ID No- :

Lab. No- :

Laboratory Seat No
Physical Pharmacy

Laboratory Practical Course

COURSE DESCRIPTION:
This laboratory course is concerned with applying physico-chemical principles in the delivery of drug and the design of pharmaceutical dosage forms. Working with the proper attention and technique, the student is expected to develop the necessary knowledge & skills required in pharmaceutics and physical pharmacy.

COURSE OBJECTIVES:
Upon completion of this laboratory course, the student should be able to perform the following objectives at the specified level:

- Know the general laboratory safety and basic techniques.
- Develop skills and techniques that are parts of pharmaceutical procedures through the actual use of equipment and instruments.
- Demonstrate the effect of the physico-chemical properties phenomena on pharmaceutical systems.
- Clarify theoretical concepts learned in physical pharmacy.
- Be able to interpret scientific data, represent the data in a tabular and/or graphical form.

GENERAL LABORATORY INSTRUCTIONS

I-Attendance:
- There is one laboratory session per week (2 hours).
- Laboratory attendance is MANDATORY (NOT optional), unless special arrangements are made with your instructor, accompanied by a valid excused absence. There will be no make-up laboratories.
- The student will lose 5% of the total course grade for each missed laboratory session.
- Students are not allowed to leave the laboratory during the session without obtaining permission, to minimize their absence.
II-Laboratory notebook:

- Students will be required to keep a "lab notebook" as a record of all work done in the lab.
- The week’s experimental procedure will be available on the faculty website, as specified by the instructor. Students have to download the material and bring the hard copy to the lab.
- Students are required to read carefully the experimental procedure before coming to the lab.
- The lab notebook with completed lab work should be submitted to the lab instructor at the end of each lab session in order to be signed and graded.

III- Safety measures:

- Each student must wear a clean, white laboratory coat at all times while in the laboratory.
- Each student must have a clean towel on hand at all times to keep his place or tools clean.
- All equipment and bottles should be returned to the proper place after use.
- Assume all chemicals used in the experiment are dangerous.
- Eating or drinking in the laboratory is prohibited.
- Do not pipette by mouth or carry reagents around the lab.
- Please note the position of the safety showers.
- Wash your hands thoroughly before leaving the lab.
- Be careful in removing broken glassware from the sink.

IV- Regulations concerning chemicals and reagents:

- Students are supposed to use the nearest reagent shelf, and they must bring depleted reagents to the stockroom to be refilled.
- Do not waste chemicals. Use just the calculated amounts of chemicals.
- Do not contaminate chemicals by using improper techniques or dirty equipment.
- Never return any excess material from a stock bottle unless advised to do so by the instructor. There is danger of contamination.
- When pouring from a reagent bottle, the label must be facing up and be sure to re-stopper each reagent bottle with its own stopper.
- Only water soluble materials are allowed to be poured into the sink.

V- Regulation concerning weighing technique:

- The balance should be closed when it is not in use.
• Be sure that pans are clean to avoid contamination.
• Weighing papers must be used to protect the pans. Never place materials to be weighed directly on the pans.
• Clean the balance immediately, if you have spilled any substance (Liquid or solid) on it.

LABORATORY STRUCTURE

• Students will work independently or in group according to the lab schedule.
• Students are required to read the theory and procedures of each experiment before coming to the lab.
• There will be a brief lecture-discussion on the theory and procedure before each new experiment.
• After the completion of each physical experiment, a full report must be submitted to the instructor on the next day.