

**LECTURES' OUTLINE : PHT 312 (Pharmaceutics II) – (2+1)**

Week	Lecture number	Topic
1	1	Introduction
	2	Aqueous solutions
2	3	Aqueous solutions
	4	Non-aqueous solutions
3	5	Colloidal systems and types of colloidal dispersion
	6	Stability of colloids
4	7	Optical properties of colloids
	8	Kinetic properties of colloids
5	9	Electrokinetic properties of colloids
	10	Pharmaceutical emulsions
6	11	Types emulsions
	12	Stability and application of emulsions
7	13	Pharmaceutical suspensions
	14	Cont.
8	15	Formulation and suspending agents
	16	Stability of suspensions Flocculation and deflocculation
9	17	Liposomes and nanoparticles
	18	Formulations of Liposomes and nanoparticles
10	19	Applications of Liposomes and nanoparticles
	20	Aerosols, propellant and containers, valve and actuator types.
11	21	Formulation and quality control of aerosols
	22	Ointment bases
12	23	Ointment formulations and uses.
	24	Cream types
13	25	Stability, application and uses of cream
	26	Gel and pastes (types and uses)
		2 Exams



**LABORATORY PROJECTS' OUTLINE : PHT 312 (Pharmaceutics II)**

Week	Topic	Description
1	Solutions	Preparation of aqueous solutions (compounding and dispensing).
2	Cont.	Preparation of aqueous solutions (compounding and dispensing).
3	Cont.	Preparation of aqueous solutions with incompatibilities.
4	Cont.	Preparation of non-aqueous solutions with incompatibilities.
5	Colloids	Preparation, properties and stability of colloids.
6	Emulsions	Preparation of emulsions containing fixed and volatile oils using dry and wet methods.
7	Emulsions	Preparation and stability of emulsions using HLB systems. Preparation of calcium oleate emulsion.
8	Suspensions	Preparation of powder for suspension and evaluation of various materials as suspending agents. Determination of the effect of various agents on the flocculation properties of suspended materials.
9	Cont.	Preparation of pharmaceutical suspensions.
10	Ointments	Preparation of oleaginous and absorption ointment bases.
11	Cont.	Preparation of emulsion and water soluble ointment bases.
12	Gels	Preparation of pharmaceutical gels.
13	Pastes	Preparation of pharmaceutical pastes
14		Exam

COURSE EVALUATION:

First midterm exam.	15
Second midterm exam.	15
Quizzes	5
Performance (lab.)	5
Final lab. exam.	20
Total	60
<u>Final examination:</u>	40
Total marks	100

