Name of Faculty		**College of Pharmacy**		**L:1 T:1**		
Name of Course		**Pharmacy**		**Credits: 2**		
Subject/Paper		**Dosage Form Design**		**Paper Code**	Ph-02	**Marks: 50**
Course Objectives		At the completion of this course each student will be able to meet the following student learning objectives: 1) Analyze and compare the difference between various dosage forms. 2) Compare various monophasic and biphasic preparations depending upon their formulation. 3) Describe the advantages and disadvantages of various solid, liquid and semisolid dosage forms. 4) Demonstrate a working knowledge of drug dosages, routes of administration, and dosage forms. **5)** predict specific uses for various solid and liquid dosage forms for oral and topical use. **(Imparting transferable and Life Skill for practicing as a pharmacist or in pharmaceutical company to prepare various types of formulations and their practical applicability and merits and demerits of each)**				
Course Cordinator **Name:** **Contact:**		**Dr Suman Rohilla** **rh.suman@gmail.com** **+91-9910025635**		**Class Time: 2:00-4:00 pm.**	**Day**	**Wednesday**
Unit	**Sub Units**	**Time (hrs)**	**Topic**	**Teaching Methodology**	**Assessment Method**	**Teaching Faculty**
Unit-I	**1.1**	10	a) **Concept of dosage form design.** Conventional dosage forms with examples. Introduction to novel drug delivery systems.	Student Interactive Session (Sis) Practical demonstration of various Dosage form	Class test Group assignment Single Response Answer Multiple Response Answer	Dr Vijay Bhalla

			Concept of modified release and targeted drug delivery system.			
	1.2		b) Powders and granules Types of powders as dosage forms. Properties of powders. Importance and methods of granulation. Effervescent granules	Teacher Seminar	Written reflective Evaluation	Mr. Manish Yadav
	1.3		c) Dissolution and solubility Concept and expression of solubility and dissolutions. Concept and mechanism of dissolution. Factors affecting solubility and rate of dissolution. Methods of solubility enhancement.	Teacher Seminar Class Assigments	Classroom presentation Single Response Answer Multiple Response Answer	Dr Nitin Mittal
Unit-II	1.1	10	**Biphasic Dosage Form** a) Emulsions Definition and types, theories of emulsions,	Student interactive session (SIS) STUDENT Group discussions.	Class test Single Response Answer Multiple Response Answer	Dr Vandna Chaudhary

			formulation aspects, emulsifying agents, HLB and RHLB system, stability and evaluation of emulsions, introduction to microemulsions and selfemulsifying drug delivery system.	Teacher Seminar Problem based Teaching		
	1.2		b) Suspensions Definition and types Stability of suspensions and factors affecting the same. Suspending agents. Suspensions containing poorly wettable solids, suspensions of precipitate forming liquids. Dry suspensions for reconstitution.	STUDENT INTERACTIVE SESSION (SIS) Video Tutorial Integrated Teaching	Group assignment Multiple question survey Single Response Answer Multiple Response Answer	Ms Kavita Attri

Unit-III	1.1	8	**a) Semisolid dosage forms** Definitions and types. Formulation and evaluation aspects of ointments, creams, pastes, jellies and suppositories.	SIS Student Seminar	Class test Single Response Answer Multiple Response Answer	Ms. Anjali Dhillon