

GAUTAM COLLEGE OF PHARMACY

DISTT.HAMIRPUR 177001 (H.P)

LESSON PLAN

Course: D. Pharmacy 1st

Year Session-2024-2025

Subject Name: Pharmaceutics

Subject Code: ER20-11T

Total teaching hours allocated by PCI= 75 hrs

Name of faculty: Priyanka Sharma

Duration of topic: 1 hr

Chapter No.	Topic No	Title of Topic	Learning outcome	Scheduled Date	Pedagogy	Assignment Detail	Remarks
1	1.	History of the profession of pharmacy in India in relation to pharmacy education,	After completion of the topic's the student will understand about History of the profession of pharmacy in India and its official's books in various countries	4/9/24	Hand written Notes	History of pharmacopeia	
		Tutorial-1		5/9/24			
	2.	Industry pharmacy practice, and various professional associations		7/9/24			
	3.	Pharmacy as a career		7/9/24			
	4.	Introduction to IP		11/9/24			
		Tutorial-2		12/9/24			
	5.	Introduction BP, Introduction USP		11/9/24			
	6.	NF and Extra Pharmacopoeia.		18/9/24			
		Tutorial-3		19/9/24			
	7.	Salient features of Indian Pharmacopoeia		20/9/24			
2	8.	Packaging materials, and types	After completion of the topic's the student will understand about Packaging material, and types, Advantages and disadvantages of various packaging materials	21/9/24	PPT/ PDF& Notesthrough online mode	Overview of various machines/equipments /instruments involved in the formulation and quality control of various dosage forms	
	9.	Packaging materials, selection criteria,		21/9/24			
	10.	Advantages and disadvantages of glass,		25/9/24			
		Tutorial-4		26/9/24			
	11.	Advantages and disadvantages of Plastic, metal,		28/9/24			
	12.	Advantages and disadvantages rubber as packaging materials		28/9/24			

3	13.	Pharmaceutical aids: Organoleptic colouring, agents	After completion of the topic's the student will understand about pharmaceutical aids, flavouring, and sweetening agent etc	03/10/24		
		Tutorial-5		04/10/24		
	14.	Preservatives: definition, types with examples and uses		05/10/24		

	15.	Preservatives: definition, types with examples and uses	.	05/10/24	Hand written Notes	Various systems of measures commonly used in prescribing, compounding and dispensing practices	
4	16.	Unit operations: definition, objectives/applications,	After completion of the topic's the student will understand about Unit operation and various types of mills used in industries.	09/10/24			
		Tutorial-6		10/10/24			
	17.	Size reduction Principles, construction, and workings of: Size reduction: hammer mill		16/10/24			
	18.	Definition, objectives/ applications, principles, construction and workings of ball mill		19/10/24	PPT/ PDF& Notes through on line mode	Explain the advantages, disadvantages, and quality control tests of different dosage forms	
	19.	Size separation: classification of powders according to IP, Cyclone separators,		19/10/24			
	20.	Sieves and Standards of sieves, Mixing: Double cone blender,		19/10/24			
	21.	Turbine mixer, triple roller Mill		23/10/24			
		Tutorial-7		24/10/24			
	22.	Silverson mixer homogenizer		26/10/24			
	23.	Filtration: Theory of filtration, membrane filter and sintered glass filter		26/10/24			

	24.	Drying: working of fluidized bed dryer and process of freeze drying		6/11/24			
		Tutorial-8		7/11/24			
	25.	Extraction: Definition, Classification, method, and applications		20/11/24			
		Tutorial-9		21/11/24			
5	26.	Tablets	After completion of the topic's the student will understand about various techniques used in productions of various dosage forms of drugs like tablets, capsule, creams, paste, gels etc.	23/11/24	Hand written Notes		
	27.	coated and uncoated		23/11/24			
	28.	Various modified tablets sustained release		27/11/24			
		Tutorial-10		28/11/24			
	29.	Various modified tablets extended release		30/11/24			
	30.	Various modified tablets extended release		30/11/24			
	31.	Fast dissolving,		11/12/24			
		Tutorial-11		12/12/24			
	32.	Capsules-hard gelatin capsules		18/12/24			
		Tutorial-12		19/12/24			
	33.	Capsules-hard gelatin capsules		19/12/25			
	34.	Capsules-soft gelatin capsule		21/12/24			
	35.	Capsules-soft gelatin capsule		21/12/24			
		Tutorial-13		26/12/24		Market preparations (including Fixed Dose Combinations) of each type of dosage forms, their generic	
		Tutorial-14		16/1/25			
	36.	Various modified tablets sustained release		18/1/25			
	37.	Extended-release,		22/1/25			
		Tutorial-15		23/1/25			
	38.	Liquid oral preparations - solution		27/1/25			

	39.	syrup		28/1/25			name, minimum three brand	
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						names and label contents of the dosage forms	
		Tutorial-16		30/1/25			
40.	elixir			3/2/25			
41.	emulsion			4/2/25			
42.	suspension			5/2/25			
		Tutorial-17		6/2/25			
43.	dry powder for reconstitution			10/2/25	Hand written Notes		
44.	Topical preparations- ointments			11/2/25			
		Tutorial-18		13/2/25			
45.	Creams, Pastes,			15/2/25	PPT/PDF& Notes through on line mode		
46.	Gels, Lotions,			17/2/25			
47.	Liniments			18/2/25			
		Tutorial-19		20/2/25			
48.	Pessaries			22/2/25			
49.	Suppositories,			24/2/25			
50.	Nasal preparations			25/2/25	Hand written Notes		
		Tutorial-20		27/2/25			
51.	Ear preparations			1/3/25			
52.	Powders granules, Insufflations			3/3/25			
53.	dusting powders,			4/3/25			
54.	Effervescent powders, and effervescent granules			15/3/25			
55.	Sterile formulations			17/3/25			
56.	Injectables			18/3/25			

		Tutorial-21	20/3/25			
	57.	Eye drops	22/3/25			
	58.	Eye drops	24/3/25			
	59.	Eye-ointments	25/3/25			
		Tutorial-22	27/3/25			
	60.	Eye-ointments	29/3/25			
	61.	Eye-ointments	1/4/25			
		Tutorial-23	3/4/25			
	62.	Immunological products:	5/4/25			

	63.	Sera manufacturing methods.	7/4/25			
	64.	Vaccines manufacturing methods.	4/25			
		Tutorial-24	10/4/25			
	65.	Toxoids, and their manufacturing methods.	19/4/25			
6	66.	Basic structure, layout, sections, of pharmaceutical manufacturing plants	21/4/25	PPT/ PDF& Notes through online mode	Basic pharmaceutical calculations ratios, conversion to percentage fraction, alligation, proof spirit, isotonicity	
	67.	Activities of pharmaceutical manufacturing plants	22/4/25			
		Tutorial-25	24/4/25			
	68.	Definition and concepts of quality control and quality assurance,	26/4/25			
	69.	Current good manufacturing practice (cGMP)	28/4/25			
		Tutorial-26	1/5/25			
	70.	Current good manufacturing practice (cGMP)	3/5/25			
	71.	Introduction to the concept of calibration and validation	5/5/25			

7	72.	Novel drug delivery systems: Introduction Classification with examples	After completion of the topic's the student will understand about Novel drug delivery systems, its advantages and disadvantages, approaches and challenges of Novel drug delivery systems	6/5/25	PPT/ PDF& Notes through online mode	About various drug delivery systems	
		Tutorial-27		8/5/25			
	73.	Advantages and disadvantages of Novel drug delivery systems		13/5/25			
	74.	Approaches to design-controlled release formulations		15/5/25			
	75.	Challenges of Novel drug delivery systems		17/5/25			

1. Total No of Assignments given: 03
2. Model question paper given: Yes/No
3. No. of extra Lectures delivered:
4. Feedback from student taken: Yes/No

Signature of the subject Teacher

Principal