

LESSONPLAN

Name of the Faculty	Mr. Yogesh
Discipline	D. Pharmacy
Year	Ist year
Subject	Pharmaceutics ER20-11T/ 11P
Lesson Plan Duration	30 weeks (from 2023-2024)

Workload (Lecture/practical) per week (in hrs):

Week		Theory	Practical	
	Lecture Day	Topic/test	Practical day	Topic
1st	1	History of the profession of Pharmacy in India in relation to Pharmacy education, industry, pharmacy practice, and various professional associations.	1st	To study the official pharmacopeias, formulae with their handling and official references.
	2	industry, pharmacy practice, and various professional associations		
	3	Pharmacy as a career,		
2nd	1	Pharmacopoeia: Introduction to IP, BP, USP, NF and Extra Pharmacopoeia.	2nd	To prepare and submit liquid oral simple syrup
	2	Salient features of Indian Pharmacopoeia		
	3	Test of chapter-1		
3rd	1	Packaging materials: Types, selection criteria	3rd	To prepare and submit castor oil emulsion
	2	advantages and disadvantages of glass, plastic		
	3	advantages and disadvantages of metal, rubber		
4th	1	Pharmaceutical aids-Introduction, organoleptic properties- coloring.	4th	To prepare and submit cod liver oil emulsion
	2	Organoleptic properties- sweetening and flavouring agent.		
	3	Preservatives		
5th	1	Size reduction- definition, hammer mill and ball mill.	5th	To prepare and submit calamine lotion

	2	Sizeseparation,classificationofpowder according to IP		
	3	Cycloneseparator		

6th	1	Sievesandstandards of sieves	6th	Toprepareandsubmitsimpleointment base.
	2	Revision		
	3	Test		
7th	1	Mixing–doubleconeblender,turbine mixer	7th	Toformulateandsubmitsulphur ointment
	2	Triplerollermillandsilversonmixer homogenizer.		
	3	Assignment		
8th	1	Filtration-theoryoffiltration,	8th	Toformulateandsubmitcetrimide cream
	2	Membranefiltration,sinteredglassfilter		
	3	Drying		
9th	1	Tablets-basicsoftablet formuation	9th	Toprepareandsubmitsodiumalginate gel
	2	Coatedand uncoated		
	3	Variousmodifiedtablets-sustained release		
10th		1 st SessionalExamination	10th	
11th	1	Extended,fastdissolvingtablets	11th	Toprepareandsubmitturpentine liniment
	2	Multilayered		
	3	Revision		
12th	1	Capsules- introduction	12th	Toprepareeffervescentpowder granules
	2	Hardgelatincapsule		
	3	Softgelatincapsules		
13th	1	Revision	13th	Toprepareandsubmitsimpledusting powder
	2	Liquidoralpreparations-introduction		
	3	solutions		
14th	1	Syrupsandelixirs	14th	Toprepareandsubmitsterileinjection of normal saline
	2	Emulsion		
	3	Suspensions		

15th	1	Dry powder for reconstitution	15 th	To prepare and submit calcium gluconate injection
	2	Revision		
	3	Test		
16th	1	Topical preparation-intro and Ointment introduction	16 th	To prepare and submit paracetamol tablet

	2	Ointment- types and bases		
	3	Creams		
17 th	1	Paste	17 th	To formulate and submit cold cream
	2	Gels		
	3	Liniments and lotion		
18th		2 nd Sessional Examination		
19 th	1	Suppositories	19 th	To prepare and submit shampoo
	2	Pessaries		
	3	Nasal preparations		
20th	1	Eye preparations	20th	To prepare and submit lotion
	2	Powders and granules- introduction and insufflations		
	3	Dusting powders, effervescent powders		
21 st	1	Effervescent granules	21 st	To prepare and submit toothpaste
	2	Sterile formulations-introduction, injectables		
	3	Eyedrops		
22 nd	1	Eye ointments	22 nd	To demonstrate various stages of tablet manufacturing processes
	2	Immunological products- Introduction		

	3	Sera and their manufacturing method		
23 rd	1	Vaccines and their manufacturing method	23 rd	To study the method of usage and storage of inhalers
	2	Toxoids and their manufacturing method		
	3	Assignments		
24 th	1	Revision	24 th	To study the method of usage and storage of spacers
	2	Quality control and assurance –definition, concepts		
	3	Current cGMP		
25 th	1	Introduction to the concept of calibration	25 th	To study the method of usage and storage of insulin pens
	2	Introduction to the concept of validation		
	3	Novel drug delivery systems- introduction,		
26 th	1	Classification of NDDS	26 th	To demonstrate quality control test and evaluation of tablets
	2	Advantages and challenges		
	3	Revision		
27 th	1	Test	27 th	To demonstrate quality control test and evaluation of capsules
	2	Revision		
	3	Revision		
28 th		3 rd Sessional Examination	28 th	
29 th	1,2,3	Revision	29 th	To demonstrate quality control test and evaluation of emulsion
30 th		Revision	29 th	To demonstrate quality control test and evaluation of sterile injections

