



ROYAL COLLEGE OF PHARMACY

COURSE: DIPLOMA IN PHARMACY

LESSON PLAN

Name of faculty	
Discipline	D. pharmacy
Year	2nd
subject	Pharmacology

Scope: This course provides basic knowledge about different classes of drugs available for the pharmacotherapy of common diseases. The indications for use, dosage regimen, routes of administration, pharmacokinetics, pharmacodynamics, and contraindications of the drugs discussed in this course are vital for successful professional practice.

Course Objectives: This course will discuss the following:

1. General concepts of pharmacology including pharmacokinetics, pharmacodynamics, routes of administration, etc.
2. Pharmacological classification and indications of drugs
3. Dosage regimen, mechanisms of action, contraindications of drugs
4. Common adverse effects of drugs

Course Outcomes: Upon successful completion of this course, the students will be able to

1. Describe the basic concepts of pharmacokinetics and pharmacodynamics
2. Enlist the various classes and drugs of choices for any given disease condition
3. Advise the dosage regimen, route of administration and contraindications for a given drug
4. Describe the common adverse drug reactions

Theory Lecture No.	Theory topics	Practical lecture no.	Practical topics	Remarks / date
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		Unit -1:- General Pharmacology (10 hrs)	
1	Introduction and Scope of Pharmacology	1	To study the various concept of experimental pharmacology.
2	Routes of Drug Administration – Advantages & Disadvantages		
3	Drug Absorption – Definition & Types		
4	Factors Affecting Drug Absorption		
5	Bioavailability		
6	Drug Distribution		
7	Biotransformation		
8	Drug Metabolism	2	Introduction of animal used for pharmacology.
9	Drug Excretion		
10	Mechanism of Drug Action		
		Unit -2:- Drugs Acting on the Peripheral Nervous System: (11 hrs)	
11	Neurohumoral Transmission		
12	Cholinergic Drugs		
13	Anticholinergic Drugs		
14	Adrenergic Drugs		
15	Antiadrenergic Drugs	3	Study of some basic instruments used for isolated tissue experiments.
16	Neuromuscular Blocking Agents		
17	Drugs for Myasthenia Gravis		
18	Local Anaesthetic Agents		
19	NSAIDs		
20	Indications/Contraindications		
21	REVISION		
CLASS TEST			
		Unit -3 :Drugs Acting on the Eye -: (2hrs)	
22	Miotics, Mydriatics	4	To study common instruments used in pharmacology lab.
23	Drugs Used in Glaucoma		
ASSGNMENT			
Unit - 4:- Drugs Acting on the Central Nervous System: (8 hrs)			
24	General Anaesthetics		
25	Hypnotics & Sedatives		

26	Anticonvulsants			
27	Antianxiety Drugs			
28	Antidepressants	5	To study wastes examine affect on drug rabbit eyes.	
29	Antipsychotics			
30	Nootropic Agents			
31	Centrally Acting Muscle Relaxants, Opioid Analgesics			
	CLASS TEST			
Unit - 5:- Drugs Acting on the Cardiovascular System (6hrs)				
32	Antihypertensive Drugs			
33	Antianginal Drugs			
34	Antiarrhythmic Drugs			
35	Atherosclerosis & CHF Drugs	6	To study the Mydriatics effect of topically applied atropine on rabbit eye.	
36	Drug Therapy for Shock			
37	Revision			
	CLASS TEST			
Unit - 6:- Drugs Acting on Blood and Blood Forming Organs (4hrs)				
38	Hematinic Agents			
39	Anticoagulants			
40	Antiplatelet Agents			
41	Thrombolytic Drugs	7	To study the anti anxiety effect of diazepam in mice using plus maze apparatus.	
	CLASS TEST			
Unit – 7:- Drugs Acting on Respiratory System (2hrs)				
42	Bronchodilators			
43	Expectorants			
	CLASS TEST			

		Unit – 8:-- Drugs Acting on Gastrointestinal Tract (5 hrs)		
36	Anti-ulcer Drugs			
37	Antiemetic	8	To study the muscle relaxant property of diazepam in mice using Rota rod	
38	Laxatives and Purgatives			
39	Antidiarrhoeal Drugs		Viva-voice	
40	Revision/Classification of GIT Drugs			
	ASSIGNMENTS			
		Unit – 9:- Drugs Acting on Kidney (2hrs)		
51	Diuretics			
52	Antidiuretic Drugs			

		Unit -10 Hormones and Hormone Antagonists:- (8hrs)		
53	Thyroid Hormones	9	To study the CNS depressant property chlorpromazine on the loco meter activity of mice using actophotometer.	
54	Antithyroid Drugs			
55	Parathormone			
56	Calcitonin			
57	Vitamin D			
58	Insulin			
59	Oral Hypoglycaemic Agents			
60	Estrogen	10	To study the analgesic effect of morphine against acetic acid induced in mice	
	CLASS TEST			
		Unit -11:-Autacoids: (3hrs)		

61	Histamine, 5-HT and Prostaglandins			
62	Antihistamines and 5-HT Antagonists			
63	Clinical Uses and Adverse Effects			
	CLASS TEST			
Unit - 12:- Chemotherapeutic Agents: (12hrs)				
64	Penicillin			
65	Cephalosporin			
66	Amino glycosides & Fluoroquinolones			
67	Macrolides & Tetracyclines	11	To study the effect of drug on normal and hypodynamic frog heart	
68	Sulphonamides & Anti-tubercular Drugs			
69	Antifungal, Antiviral			
70	Anthelmintics			
71	Antineoplastic Agents			
72	Antiamoebic Drugs			
73	Antimalarials			
	CLASS TEST			
Unit - 13:- Biological(2 hrs)				
74	Definition, Types and Indications of Biological Agents	12	To perform test for pyrogen rabbit methods	
75	REVISION/ASSIGNMENTS			

	CLASS TEST			
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Teacher In-charge

Academic

In-charge Principal