



LESSON PLAN

Faculty Name: Dr. Parveen Kr. Goyal

Subject Name: Pharmacology & Toxicology

Class: D. Pharmacy – 2nd year

Subject Code: 2133

Scope of the Subject: The main purpose of the subject is to understand what drugs do to the living organisms and how their effects can be applied to therapeutics. The subject covers the information about the drugs like, mechanism of action, physiological and biochemical effects (pharmacodynamics) as well as absorption, distribution, metabolism and excretion (pharmacokinetics) along with the adverse effects, clinical uses, interactions, doses, contraindications and routes of administration of different classes of drugs.

Course outcome: Upon completion of this course the student should be able to:

- Understand the pharmacological actions of different categories of drugs
- Explain the mechanism of drug action at organ system/sub cellular/ macromolecular levels.
- Apply the basic pharmacological knowledge in the prevention and treatment of various diseases
- Observe the effect of drugs on animals by simulated experiments
- Appreciate the correlation of pharmacology with other biomedical parameters

Number of Lectures: 75 + 5

Each Lecture: 01 Hr.

Lecture No.	Particular	Remark/Date
Introduction		
1.	Introduction to pharmacology and scope of pharmacology	
Module 1: Routes of administration of drugs		
2.	Routes of administration of drugs	
3.	Various processes of absorption of drugs	
4.	Factors affecting drug action	
5.	Metabolism, distribution and excretion of drugs	
Module 2: General mechanism of drugs action		
6.	General mechanism of drugs action	
7.	Factors which modifying drugs action	
8.	Pharmacological classification of drugs	
Module 3: Drugs acting on the Central Nervous system		
9.	General anaesthetics:- Adjunction to anaesthesia, intravenous anaesthetics. Analgesic antipyretics and Non-Steroidal Anti-inflammatory drugs	
10.	Narcotic analgesics	
11.	Anti-rheumatic and anti-gout remedies	
12.	Sedative and Hypnotics	
13.	Psychopharmacological agents	
14.	Anticonvulsants	

15.	Analeptics	
16.	Centrally acting muscle relaxants	
17.	Anti-parkinsonism	
18.	Local anesthetics	
Module 4: Drugs acting on autonomic nervous system		
19.	Cholinergic drugs	
20.	Anti-cholinergic agents	
21.	Adrenergic drugs	
22.	Adrenergic receptor blockers	
23.	Neurone blockers and ganglion blockers	
24.	Neuromuscular blockers	
25.	Drugs acting on eye:- Mydriatics, drugs used in glaucoma	
Module 5: Drugs acting on respiratory system		
26.	Respiratory stimulants	
27.	Bronchodilators	
28.	Bronchodilators	
29.	Nasal decongestants	
30.	Expectorants and Anti-tussive agents	
Module 6: Autocoids		
31.	Physiological role of histamine and serotonin	
32.	Histamine and Antihistamines	
33.	Prostaglandins	
Module 7: Cardiovascular drugs		
34.	Cardiotonics	
35.	Antiarrhythmic agents	
36.	Anti-anginal agents	
37.	Antihypertensive agents	
38.	Peripheral vasodilators	
39.	Drugs used in atherosclerosis	
40.	Haematinic	
41.	Coagulants and Anticoagulants	
42.	Haemostatic	
43.	Blood substitutes and plasma expanders	
Module 8: Drugs affecting renal function		
44.	Diuretics	
45.	Anti-diuretics	
Module 9: Hormones and hormone antagonists		
46.	Hypoglycemic agents	
47.	Anti-thyroid drugs	
48.	Sex hormones	
49.	Oral contraceptives	
50.	Corticosteroids	
Module 10: Drugs acting on digestive system		
51.	Carminatives	
52.	Digestants	

53.	Bitters	
54.	Antacids	
55.	Drugs used in peptic ulcer	
56.	Purgatives and laxatives	
57.	Anti-diarrohoeals	
58.	Emetics	
59.	Anti-emetics	
60.	Antispasmodics	
Module 11: Chemotherapy of microbial diseases		
61.	Urinary antiseptics	
62.	Sulphonamides	
63.	Penicillin	
64.	Penicillin	
65.	Streptomycin	
66.	Tetracyclines	
67.	Other antibiotics	
68.	Anti- tubercular agents	
69.	Antifungal agents	
70.	Antiviral drugs	
71.	Anti-leprotic drugs	
72.	Chemotherapy of protozoal diseases	
73.	Anthelmintic drugs	
74.	Chemotherapy of cancer	
Module 12: Disinfectants and antiseptics		
75.	Disinfectants and antiseptics	
Revision		
76.	Revision of previous question papers	
77.	Revision of previous question papers	
78.	Revision of previous question papers	
79.	Revision of previous question papers	
80.	Revision of previous question papers	

Teacher in-charge

HOD

Principal