FIRST SEMESTER 2016– 2017

Course Handout (Part I)

In addition to part I (general handout for all courses appended to the Time Table), this portion gives further specific details regarding the course.

Course No. : **PHA F 311**
Course Title : **Pharmacology-I**
Instructor-In-Charge : **Rajeev Taliyan**

Team of Instructors : Anil Gaikwad, Yeshwant Kurhe, Pracheta Sengupta, Santosh

Course Description:

Pharmacology of important classes of drugs including their mechanisms of action, therapeutic uses, side effects, toxic manifestations, indications and contraindications.

Scope and Objectives:

This course is intended to impart the knowledge regarding the sources, routes of drug administration, pharmacokinetics (ADME) and phramacodynamics (mechanism of action) of various drugs. This course is also intended to impart the knowledge regarding the concepts of action of drugs on various systems of the human body including ANS, SNS and CNS. The course also deals with therapeutic uses, side effects and contraindications of the drugs, which are commonly prescribed for the treatment of various disease conditions.

Text book (TB):

1. Tripathi KD, Essentials of Medical Pharmacology, 7th edition, Jaypee brothers, New Delhi, 2013.
2. Satoskar R.S. & Bhandarkar S.D., Pharmacology and Pharmacotherapeutics 19th edition, Popular Prakashan, Bombay, 1997.

Reference Books (RBs):

1. Lippincott's Illustrated reviews: Pharmacology, MJ Mycek et al (Editor), Lippincott-Raven Publishers, New York, 3rd edition, 2001.
2. Katzung BG, Basic and Clinical Pharmacology, 8th edition, Prentice Hall, London, 2001
3. Goodman & Gilman's The Pharmacological Basis of Therapeutics, by JG Hardman (Editor), 10th edition, McGraw-Hill Publishing Co, 2001.
4. Pharmacology, HP Rang, MM Dale & JM Ritter (editors), 6th edition, Churchill Livingstone, 2007.

COURSE PLAN:

A. Theory Components

Lect. No.	Topics to be covered	Lecture Contents	Section No. (TB)
1	General Pharmacology	Introduction to Pharmacology, Sources of drugs, Dosage forms	I
2-3		Routes of drug administration	
4-7		Pharmacokinetics (ADME)	
8-11		Pharmacodynamics: mechanism of action, Combined effect of drugs, Factors modifying Drug action,	
		Tolerance and Drug dependence and related conditions	
12-14		Clinical pharmacology and Drug developments	
15-16		Adverse drugs reactions and their monitoring, Iatrogenic diseases, Pharmacogenetics	
17	Pharmacology and Drugs acting on ANS	General Introduction to nervous system (CNS,PNS & ANS)	II
18		Neurohumoral transmission (CNS and ANS)	IV
19		Parasympathomimetic (Cholino-mimetic drugs)	
20-21		Anticholinergic drugs	
22-23		Sympathomimetic (Adrenergic drugs)	
24		Antiadrenergic drugs	

25		Ganglion agonists & blockers	
26		Mydriatic and miotic agents and drugs used in glaucoma	IV
27	Pharmacology and Drugs acting on CNS	General Anesthetics	II
28		Aliphatic Alcohols and disulfiram.	
29-30		Sedatives and Hypnotics	
31-33		Antiepileptic drugs	
34		Anti-parkinsonian and Alzhiemer agents	
35-37		Antipsychotics and Antimanic agents	
38		Antidepressant drugs	
39-40		Opioid analgesics and antagonists	
41	Drugs acting on SNS	Skeletal Muscle Relaxants and Local Anesthetics	III/ IV
42	Autocoids and related drugs	Eicosanoids (Prostaglandins & and leukotrienes)	V
43		Histamine and anti-histaminics	
44-45		Anti-inflammatory, Antipyretics and Analgesics drugs	II

B. Practical components:

S.N.	Experiments	Schedule
1-12	Experiments using common laboratory animals and software based, related to CNS, ANS, pain and inflammation	Twelve Experiments for each laboratory section

Evaluation Scheme:

S. No.	Evaluation Component	Duration	Weightage (%)	Nature of Component	Date
1.	Mid-Test	90 min	30	CB	5/10 2:00 - 3:30 PM
2	Comprehensive	180 min.	40	CB & OB	7/12 FN
3	Continuous assessments*		30	CB & OB	

*Continuous assessments will be based on theory covered in class. It will be in terms of home assignment/ Tutorials, project work, Laboratory work, Viva-Voce and class presentation

Attendance: Although attendance is not compulsory, regularity in theory and practical classes will be decisive factor during grading, especially in borderline cases. Laboratory attendance is must and no make-up will be given for it.

Chamber Consultation Hour: To be announced in the class.

Make-up policy: Generally make-up will be considered for regular students only (80% attendance in lecture classes). It is solely dependent on the "genuineness" of the circumstances. The make-up application should be personally given to instructor-in-charge.

Notices: Concerning this course will be displayed on Department of Pharmacy notice board only.

Instructor-in-charge

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