COURSE	**FACULTY OF PHYSIOTHERAPY**
PROGRAM	**BACHELOR OF PHYSIOTHERAPY**
SEMESTER	**2**
COURSE TITLE	**PHARMACOLOGY**
COURSE CODE	**17PT0203**
COURSE CREDITS	**4**

Course Outcomes: After completion of this course, student will be able to:

1. Understand the concepts of general pharmacology
2. Understand the pharmacological actions of different categories of drugs
3. Explain the mechanism of drug action at the organ system/subcellular/ macromolecular levels
4. Apply the basic pharmacological knowledge in the prevention and treatment of various diseases
5. Understand the adverse effects, contraindication of drugs

Pre-requisite of course:describe pharmacological effects of commonly used drugs by patients referred for physiotherapy; list their indications adverse reactions, precautions to be taken and contra indications, formulation and routes of administration

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
80	0	0	25	15	10	0	0

Contents : Unit	Topics	Contact Hours
1	**General Principles** Introduction and scope of pharmacology (definitions), sources of drugs , Routes of drug administration , Pharmacokinetics: drug absorption and bioavailability, drug distribution, drug metabolism, drug excretion, biological half like (t½) and steady state concentration etc. , Pharmacodynamics: site of drug action, mechanism/s of drug action including receptor concept , Adverse drug reactions and drug interactions – pharmaco vigilance , Factors influencing drug actions, dosage etc , Concepts of essential drugs and rational drug therapy	5
2	**Drug acting on peripheral nervous system (autonomic nervous system)** Adrenergic agonists and antagonists , Cholinergic agonists and antagonists , Skeletal muscle relaxants	5
3	**Autacoids and related drugs** Histamine and antihistaminic drugs , 5-HT and antagonists, ACE inhibitors and angiotensin, antagonists , Prostaglandins, Nonsteroidal anti-inflammatory drugs (NSAID)s, Drug therapy of	10

	Rheumatoid arthritis, Gout, Osteoarthritis etc.	
4	**Drugs for respiratory disorders** Drug therapy of cough , Drug therapy of common respiratory infections: pharyngitis, tonsillitis, sinusitis, laryngitis etc. , Drug therapy of bronchial asthma, COPDs – effect of long term administration of such drugs	10
5	**Drugs for cardiovascular diseases** . Drugs used in management of hypertension , Angina pectoris, congestive heart failure, cardiac arrhythmias, shock etc. , Diuretics	5
6	**Drugs used in central nervous system (CNS) disorders** Introduction to CNS pharmacology , Alcohol , Sedatives and hypnotics, antianxiety drugs , Antiepleptic drugs , Opioid analgesics , Antidepressants, antipsychotics , General and local anaesthetic agents , Drug abuse , Drugs used in treatment of parkinsonism	10
7	**Insulin and other antidiabetic drugs** Insulin and other antidiabetic drugs	5
8	**Drugs affecting calcium metabolism** Drugs used in the treatment of osteoporosis, Glucocorticosteroids and anabolic steroids	5
9	**Chemotherapy** General principles and classification , Antitubercular drugs , Antileprosy drugs	5
10	**Other chemotherapuetic drugs** Antibacterial drugs: Sulfonamides, cotrimoxazole, fluoroquinolones, beta lactam antibiotics, aminoglycosides, tetracyclines, chloramphenicol, macrolide antibiotics, misc. antibiotics	5
11	**Endocrine pharmacology** Thyroid and antithyroid drugs, Female sex hormones	5
12	**Drugs used in gastro intestinal disorders** Diarrhea, Vomiting, Constipation, Peptic ulcer	5
13	**Miscellaneous drugs** Drugs used in management of anemia , Immunomodulators, vaccines and sera	5
Total Hours		

References:

Textbooks:

1. Essentials of Medical Pharmacology – KD Tripathi
2. Pharmacology for Physiotherapy students - Padmaja Udaykumar, Jaypee Publication.
3. Pharmacology & Pharmacotherapeutics - RS Satoskar, SD Bhandarkar & Nirmala N Rege

Reference books:

1. Clinical Pharmacology - D.R. Laurence, PN Bennet, MJ Brown
2. Goodman & Gilman's the pharmacological basis of therapeutics
3. Basic and Clinical Pharmacology- Bertram G Katzung

DR. ASHISH DHIRAJLAL KAKKAD (PT)

Digitally signed by (Name of HOD)

DR. ASHISH DHIRAJLAL KAKKAD (PT)

Digitally signed by (Name of Dean/ Principal)