

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF PHARMACY
SEMESTER: V

Subject Name: **Pharmacology – II**

Sr. No.	Course contents	Proposed No. of Hours of Teaching
1.	<p>Drugs acting on Nervous system:</p> <ul style="list-style-type: none"> a. Neuronal transmitters in CNS b. General Anesthetics c. Ethyl and Methyl Alcohols d. Sedatives and Hypnotics, Anxiolytic Agents and Centrally acting Muscle Relaxants e. Antipsychotics and Drugs used in Affective Disorders f. Antiepileptic Drugs g. Antiparkinsonian Drugs h. Analgesics, Antipyretics and Anti-Inflammatory Drugs i. Opioids Analgesics and Antagonists j. CNS Stimulants and Psychotomimetic Agents k. Drug Dependence and Drug abuse 	22
2.	<p>Drugs acting on Cardiovascular and Renal System:</p> <ul style="list-style-type: none"> a. Cardiac Glycosides and other Cardiotonics b. Antihypertensive Drugs c. Anti-anginal Drugs d. Anti-arrhythmic Drugs e. Antihyperlipedemic Drugs f. Diuretics and anti-Diuretics 	17
3.	<p>Drugs Acting on the Hemopoietic System:</p> <ul style="list-style-type: none"> a. Hematinics and Erythropoietin b. Drugs Affecting Coagulation, Bleeding and Thrombosis c. Plasma Expanders 	3
4.	Gene Based Therapy	3

Pharmacology – II – Practical 3 hr/week:

1. **Experiments on Central Nervous System:** Recording of Spontaneous Motor Activity, Stereotype, Analgesia, Anticonvulsant Activity and Muscle Relaxant Activity of Drugs using Simple Experiments.
2. Study on Analgesic and Anti-Inflammatory Activity .
3. **Simulation Experiments on Cardiovascular System :** Effects of Various Drugs on Isolated Frog Heart.
4. Demonstration on the Effects of Various Drugs on the Rat blood Pressure.
5. To find out Nature of Unknown Drugs (Acetylcholine, Histamine, BaCl₂, Physostigmine, Atropine, Mepyramine And Papaverine) using Rat/Guinea Pig/Chicken Ileum Preparation.
6. Study on the Effects of CNS Stimulant (Coffee/Tea) on Human Volunteers.

References Books:

1. Rang H.P., Dale M.M., et al-Pharmacology (1995) 3rd Edn. Churchill livingstone USA.
2. Satoskar R.S.,et al-Pharmacology and Pharmacotherapeutics (1999) 6th Edn. Popular Prakashan, Mumbai.
3. Harvel, R.A., Champe P.C. et al —Pharmacology (1997) 2nd Edn. Lippincott-Raven Company, Philadelphia, New York.
4. Goodman and Gilman's —the Pharmacological basis of Therapeutics (1996) 9th Edn. Pergamon Press, Singapore.
5. Seth,S.D. Text Book of pharmacology,B.I.Churchill, 1997.
6. Goyal, R.K, Mehta A.A.et al- ELEMENTS OF PHARMACOLOGY: B.S. Shah Prakashan, Ahmedabad
7. Goyal R.K.-Practicals in Pharmacology (1994-95) 1st Edn. M/s B. S. Shah Prakashan, Ahmedabad.
8. Sheth U.K. et al-Selected topics in Experimental Pharmacology(1972)15^t Edn. The Kothari Book Depot, Mumbai.
9. Kulakarni S.K.- handbook of Experimental Pharmacology (1993)2^{fld} Edn. Vallabh Prakashan, New Delhi.
10. Ghosh M.N - Essentials of Experimental Pharmacology,(1984) Scientific book agency, Calcutta.