

**Distribution of marks:**

Total marks: 200 (Theory 100marks + Practical 100 marks)

**Theory:**

Theory exam (70); Internal Assessment (10); Theory viva (20) = 100 marks

**Practical:**

Final Practical (80) + Record (10) + Internal practical (10) =100 marks

**Internal assessments:**

3 internal assessments will be conducted every year.

The continuing assessment examinations may be held frequently at least 3 times in a particular year and the average marks of these examinations should be considered. 10% of the total marks in each subject for both theory, practical and clinical examination separately should be set aside for the internal assessment examinations.

**The referred and detained students are also required to appear for a minimum of one internal assessment examination in theory and practical / clinical in the subjects concerned.** New assessment marks are to be taken for the declaration of the results.

If the candidate is absent for any of the examinations, the marks in that shall be treated as zero.

Internal assessment examination should include MCQ's.

**Part completion tests & weekly tests:** Going on regularly

**Eligibility to write university Exam:**

Attendance percentage in theory and practicals should be more than 75% individually.

## GENERAL AND DENTAL PHARMACOLOGY AND THERAPEUTICS

### **AIM:**

The broad goal of teaching under graduate students in pharmacology is to inculcate rational and scientific basis of therapeutics keeping in view of dental curriculum and Profession.

### **OBJECTIVES:**

At the end of the course the student shall be able to:

- Describe the pharmacokinetics and pharmacodynamics of essential and commonly used drugs in general and in dentistry in particular.
- List the indications, contraindications; interactions, and adverse reactions of commonly used drugs with reason.
- Tailor the use of appropriate drugs in disease with consideration to its cost, efficacy, safety for individual and mass therapy needs.
- Indicate special care in prescribing common and essential drugs in special medical situations such as pregnancy, lactation, old age, renal, hepatic damage and immuno compromised patients.
- Integrate the rational drug therapy in clinical pharmacology.
- Indicate the principles underlying the concepts of “Essential drugs”.

### **SKILLS:**

At the end of the course the student shall be able to:

1. Prescribe drugs for common dental and medical ailments.
2. Appreciate adverse reactions and drug interactions of commonly used drugs.
3. Observe experiments designed for study of effects of drugs.
4. Critically evaluate drug formulations and be able to interpret the clinical pharmacology of marketed preparations commonly used in dentistry.
5. INTEGRATION: Practical knowledge of use of drugs in clinical practice will be acquired through integrated teaching with clinical departments.

## **COURSE CONTENT:**

### **I. GENERAL PHARMACOLOGY**

1. General principles of pharmacology; sources and nature of drugs; dosage forms; prescription writing; pharmacokinetics (absorption, distribution, metabolism and excretion of drugs), mode of action of drugs, combined effects of drugs, receptor mechanism of drug action, factors modifying drug response, adverse drug reactions; drug interactions, Implications of General Principles in clinical dentistry.
2. CNS drugs; General anaesthetics, hypnotics, analgesics, psychotropic drugs, antiepileptics, muscle relaxants, local anaesthetics, Implications of these drugs in clinical dentistry.
3. Autonomic drugs; sympathomimetics, antiadrenergic drugs parasymphomimetics and parasympatholytics, Implications of Autonomic drugs in clinical dentistry.
4. Cardiovascular drugs; Cardiac stimulants; antihypertensive drugs, vasopressor agents, treatment of shock, Antianginal agents and diuretics, Implications of these drugs in clinical dentistry.
5. Autocoids:  
Histamine, antihistamines, prostaglandins, leukotrienes and bronchodilators, Implications of Autocoids in clinical dentistry.
6. Drugs acting on blood: coagulants and anticoagulants, hematinics, Implications of these drugs in clinical dentistry.
7. G.I.T. Drugs, Purgatives, anti-diarrhoeal, antacids, anti-emetics, Implications of these drugs in clinical dentistry.
8. Endocrines; Emphasis on treatment of diabetes and glucocorticoids, thyroid and antithyroid agents, drugs affecting calcium balance and anabolic steroids, Implications of these drugs in clinical dentistry.
9. Chemotherapy: Antimicrobial agents (against bacteria, anaerobic infections, fungi, virus and broad spectrum). Infection management in dentistry. Pharmacotherapy of Tuberculosis, leprosy and chemotherapy of malignancy in general. Implications of Chemotherapy in clinical dentistry.
10. Vitamins: Water soluble vitamins, Vit.D, Vit.K. and Vit.E, Implications of Vitamins in clinical dentistry.
11. Pharmacotherapy of emergencies in dental office and emergency drugs tray. Implications of Pharmacotherapy in clinical dentistry.
12. Chelating agents – BAL, EDTA and desferrioxamine.

### **II. DENTAL PHARMACOLOGY**

1. Anti – septics; astringents, obtundents, mummifying agents, bleaching agents, styptics, disclosing agents, dentifrices, mouth washes, caries and fluorides.
2. Pharmacotherapy of common oral conditions in dentistry.

#### **PRACTICALS AND DEMONSTRATIONS:**

- To familiarise the student with the methodology: prescription writing and dispensing.
- Rationale of drug combinations of marketed drugs.

#### **LIST OF BOOKS RECOMMENDED FOR READING AND REFERENCE:**

1. ESSENTIALS OF PHARMACOLOGY FOR DENTISTRY, KD TRIPATHI, 2<sup>ND</sup> EDITION, JAYPEE BROTHERS.
2. TEXTBOOK OF PHARMACOLOGY FOR DENTISTRY AND ALLIED HEALTH SCIENCES, PADMAJA UDAYKUMAR, 3<sup>RD</sup> EDITION, JAYPEE BROTHERS
3. DENTAL PHARMACOLOGY, HL SHARMA, KK SHARMA, DK GUPTA, 2<sup>ND</sup> EDITION, PARAS MEDICAL PUBLISHER
4. PHARMACOLOGY: PREP MANUAL FOR UNDERGRADUATES, TARA SHANBHAG & SHENOY, 2<sup>ND</sup> EDITION, Elsevier India