AP PGECET 2025 Pharmacy Syllabus

Pharmacognosy & Phytochemistry Syllabus

| Pharmacognosy & Phytochemistry | Sources of Crude Drugs of natural origin and their Classification Factors affecting the cultivation of medicinal and aromatic plants Plant growth regulators Adulteration and types of adulterants Methods of evaluation of crude drugs Definition, classification, properties, general methods of extraction Chemistry Tests for detection of the following classes of phytoconstituents: Alkaloids/ Glycosides/ Terpenoids/ Tannis/ Carbohydrates/ Lipids/ Proteins/ Enzymes Pharmacognostic aspects of crude drugs containing aforesaid classes of phytoconstituents/ tests for identification/ uses/ adulterants/ substituents/ allied drugs Study of fibers used in pharmacy: Cotton/ silk/ wool/ nylon/ polyesters/ glass wool/ asbestos Plant tissue culture: types of culture/ nutritional requirements/ growth and maintenance/ applications of plant tissue culture |
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Pharmaceutical Chemistry Syllabus

| Pharmaceutical Chemistry | Introduction to drug design Stereochemistry of drug molecules Structure/ nomenclature/ |
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Pharmaceutics Syllabus

| Physical Pharmacy | Matter and properties of matter Micromeretics and power rheology Surface and interfacial phenomenon Viscosity and rheology Dispersion systems Complexation Kinetics and drug stability |
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| Pharmaceutical Technology | Performulation studies Pharmaceutical calculations Formulation/ development/ |

| | packaging/ evaluation of liquid dosage forms, tablets, capsules, semisolid dosage forms, aerosols, micro-encapsulation, parenteral products, suppositories, ophthalmic preparations/ blood products/ plasma substitutes/ surgical products Cosmetic preparations: Skin/ nails/ hair/ eyes/ lips/ baby care products/ dentifrices |
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| Biopharmaceutics and Pharmacokinetics | Passage of drugs across a biological barrier Factors influencing absorption: biological/ physico chemical/ physiological/ pharmaceutical Basic principles of pharmacokinetics Compartment kinetics: One-compartment model with reference to intravascular and oral drug administration Concept of clearance Non-linear pharmacokinetics with reference to one compartment model after IV drug administration Bioavailability and bioequivalence |

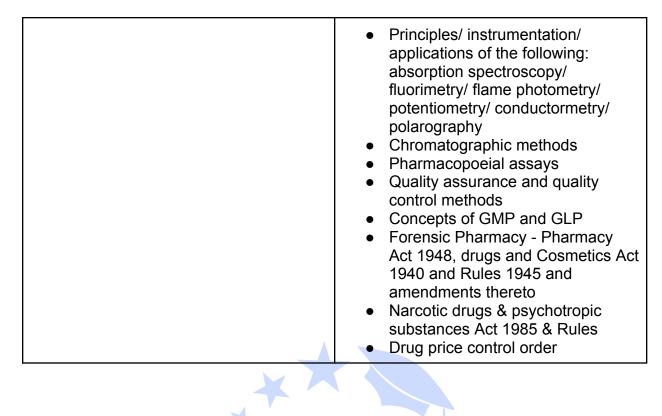
Pharmacology Syllabus

| Pharmacology | General pharmacological principles including toxicology Pharmacology of drugs acting on the central nervous system Cardiovascular system Autonomic nervous system Gastrointestinal system and respiratory system Pharmacology of autacoids: histamine/ antihistaminic drugs 5-HT its agonists and antagonists/ |
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| | 5-H1 its agonists and antagonists/ prostaglandins/ thromboxanes/ leukotrienes |

| | Steroidal and non-steroidal anti-inflammatory drugs Pharmacology of endocrine system: Thyroid hormones and antithyroid drugs Insulin Oral hypoglycemics Estrogens Progesterone and oral controceptives Androgens and anabolic steroids Chemotherapeutic agents Bioassays / Immune Pharmacology Drugs acting on the blood and blood-forming organs Clinical pharmacy: therapeutic drug monitoring/ dosage regimen in renal and hepatitic impairment Drug: drug interactions/ drug-food |
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| | drug monitoring/ dosage regimen |
| * | Adverse drug reactions Medication history/ interview/ patient counseling |

Pharmaceutical Analysis and Quality Assurance Syllabus

| Pharmaceutical Analysis and Quality Assurance | Concepts of qualitative and quantitative analysis Fundamentals of volumetric analysis Methods of expressing concentration Primary and secondary standards Acid-base/ oxidation-reduction/ precipitation/ non-aqueous/ complexometric titrations Gravimetric analysis Concept of error/ precision/ accuracy/ specificity/ sensitivity/ detection limit/ linearity/ range Ruggedness/ standards/ atandardization/ polibration of |
|--|---|
| | Ruggedness/ standards/ standardization/ calibration of analytical equipment |



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