

Final Year B.Pharm (VII Semester)

471T Sterile Products

Students will able to Know

- CO 1:** Discuss General requirements, routes of administration, significance of tonicity adjustment and sterility and Pre-formulation of sterile products.
- CO 2:** To get familiar with the GMP, layout of Parenteral Production Facility, environmental Control zones, heating ventilation air conditioning, HEPA filter and laminar area flow systems.
- CO 3:** Detail discussion regarding SVP, LVP along with Special types and Pilot plant scale up.
- CO 4:** General requirements, formulation, types and evaluation of ophthalmic products.
- CO 5:** Describe Blood Products and Surgical Dressings

471P Sterile Products

Students will able to Know

- CO 1:** To Expertise in sealing of ampoules by different technique.
- CO 2:** Formulation development & Pharmacopoeial evaluation of small volume and large volume parenteral.
- CO 3:** Formulation development & Pharmacopoeial evaluation of ophthalmic formulation.
- CO 4:** Illustrate importance and perform validation of aseptic area
- CO 5:** Evaluation of marketed formulation including lyophilized products, parenteral suspension and emulsion.

472T Pharmaceutical Analysis-V

Students will able to Know

- CO 1:** To understand theory and application of some spectroscopy technique applied in pharmaceutical industry like IR, FTIR
- CO 2:** Explain the principles of a wide range of modern analytical methods of separation and quantization such as GC, Flash and SCF

CO 3: To gain knowledge about electron microscopy

472P Pharmaceutical Analysis-V

Students will able to Know

CO 1: Learning different technique for spectroscopic estimation of multi-component formulation

CO 2: Students should be able to understand the foundations of SEM, GC, AAS and be able to apply these techniques to their own research projects

CO 3: To cover the aspect of application of most common analytical method used in elucidation of structure applicable in pharmaceutical analysis

473T Medicinal Chemistry-III

Students will able to Know

CO 1: Outline the synthetic route for the selective medicinal compounds of each category and acquire knowledge on the mechanism of action of therapeutic agents.

CO 2: Explain the influence of the metabolic profile of drugs and their impact on biological system

CO 3: Explain the influence of structural features on biological activity and therapeutic uses of medicinal compounds

CO 4: Describe the therapeutic uses of narcotic analgesics, autocooids, drugs acting on RT & GIT

473P Medicinal Chemistry-III

Students will able to Know

CO 1: Design and adopt the reaction schemes for the synthesis of various medicinal compounds of diverse chemical categories.

CO 2: Analyze functional groups present in synthesized drug through IR and its purification by column chromatography

CO 3: Discuss the use of various equipments such as microwave oven and safety measures during working in chemistry lab.

474T Pharmacology-IV

Students will able to Know

- CO 1:** Get in Depth Knowledge about Pharmacology and pharmacotherapy of drugs used in infectious diseases and cardiovascular disorders.
- CO 2:** Understand the prescription pattern and rational use of drugs by performing case study or doing hospital visit.
- CO 3:** understand the involvement of oxidative stress and role of antioxidants along with some safety issue in pharmacology

474P Pharmacology-IV

Students will able to Know

- CO 1:** Ability to perform various methods of bioassay.
- CO 2:** Ability to study rational and irrational fixed dose combinations
- CO 3:** Ability to audit prescription and study standard treatment protocol.

475T Natural Drug Technology

Students will able to Know

- CO 1:** Understand & explain various difficulties in standardization of herbal material, new approaches evolved, and steps in development of plant monograph.
- CO 2:** Explain concept of health & pathogenesis, philosophical basis, diagnosis & treatment aspects of Ayurveda, Unani, Siddha & Homoeopathic system of medicine
- CO 3:** Explain method of preparation of Ayurvedic dosage forms; significance of novel drug delivery of natural products

475P Natural Drug Technology

Students will able to Know

CO 1: Prepare, label & evaluate herbal/TSM formulations

CO 2: Evaluate marketed cosmetic & nutraceutical formulations

CO 3: Conduct pre-formulation parameters & understand underlying rationale

476T Bio-pharmaceutics and Pharmacokinetics

Students will able to Know

CO 1: To understanding the concept of Bio pharmaceutics and its applications in formulation development

CO 2: To study pharmacokinetic processes and their relevance in efficacy of dosage form.

CO 3: To learn various compartmental models and non compartmental analysis methods

CO 4: Understanding concept and mechanisms of dissolution *in vitro in vivo* correlation and bioavailability & bioequivalence studies

477T Pharmaceutical Jurisprudence

Students will able to Know

CO 1: Ability to understand basic principles, purpose and dimensions of law.

CO 2: Ability to understand significance of various schedules.

CO 3: Understand knowledge about patents, procedure for patent application and intellectual property right.