GNCP

Subjectwise Course Outcome - [B. Pharmacy - 2022-23]

First Semester

Third Semester

Pharmaceutical Microbiology [Theory | Regular]

CO ID.	Course Outcome
CO-1	Know about new world of microorganisms and understand methods of identification, cultivation and preservation of them.
CO-2	Understand the importance, various methods and application of sterilization inpharmaceutical products and industry.
CO-3	Demonstrate theory and practical skills in microscopy and handling of compound microscope and staining procedures
CO-4	Understand and apply the knowledge about aseptic area, sterilization equipment and clean room in pharmaceutical industry
CO-5	Demonstrate and learn about various techniques of sterility testing, microbial assay, preservation of pharmaceutical products and cell culture.

Pharmaceutical Microbiology [Practical | Regular]

CO ID.	Course Outcome

Course outcome not yet added by the respective faculty.(Mr. Krishnakant Bhelkar)

BP301T Pharmaceutical Organic Chemistry II [Theory | Regular]

CO ID.	Course Outcome
CO1	Explain basic knowledge regarding general method of preparation of organic compounds.
CO2	Summarize reactions of organic compounds including synthesis, mechanism, orientation & reactivity.
CO3	Illustrate knowledge of organic compounds in synthesis of some drugs.
CO4	Explain chemistry of fats & oils.
CO5	Differentiate polynuclear organic compounds with respect to their chemistry.
CO6	Structure and uses of important organic compounds.

BP302T Physical Pharmaceutics I [Theory | Regular]

CO ID.	Course Outcome
CO1	Define and remember various physico-chemical properties (partition coefficient, solubility, Rf etc) of drug molecules, drug Protein complexation, pH buffers and Surface tension of liquids used in the pharmaceutical formulations.
CO4	Identify and interpret the physico-chemical properties, pH-buffers, factors affecting surface tension and complexation properties of drug molecules in the pharmaceutical application.
CO3	Understand the concept of Raults law, surface tension and HLB and apply them in pharmaceutical practices.
CO2	Describe the role of distribution law, diffusion, surfactants, interfacial phenomenon, pharmaceutical buffers, tonicity and concept of complexation.

BP304T Pharmaceutical Engineering [Theory | Regular]

CO ID.	Course Outcome
CO1	To know various unit operations used in Pharmaceutical industries.
CO2	To understand the material handling techniques.
CO3	To perform various processes involved in the pharmaceutical manufacturing process.
CO4	To carry out various tests to prevent environmental pollution.
CO5	To appreciate and comprehend the significance of plant layout design for optimum use of resources.

CO6	To appreciate the various preventive methods used for corrosion control inPharmaceutical industries.
BP305P Pharmaceutical Organic Chemistry II [Practical | Regular]	
CO ID.	Course Outcome
CO1	How to perform laboratory work in safe & tidy manner.
CO2	How to purify and separate an organic compound by way of seam distillation, recrystallization techniques.
CO3	How to identify the purity of fats and oils by acid value, saponification value and iodine value (including standardization of reagents)..
CO4	How to perform synthesis of organic compounds using diazotization, oxidation reactions and EAS reactions like nitration, halogenation etc.
CO5	How to analyze named reactions like perkin and claisen schmidt reactions by using carbonyl compounds.
BP306P Physical Pharmaceutics I [Practical | Regular]	
CO ID.	Course Outcome
CO1	To determine the various properties like solubility, partition coefficient, pKa of the drug.
CO2	To compare the surface tension determined by drop number and drop count methods.
CO3	To correlate the effect of different factors on surface tension, partition coefficient and CMC value
CO4	Demonstrate the procedural parts of practicals
BP308T Pharmaceutical Engineering [Practical | Regular]	
CO ID.	Course Outcome
CO1	Operate various equipment used in unit operations such as ball mill, sieve-shaker, hot air oven etc.
CO2	Study effect of various parameters affecting unit operations like filtration and evaporation.
CO3	Understand the importance of various unit operations by using various instruments
CO4	Determination of various constants, values used in various unit operations
CO5	Record data and interpret it
Fifth Semester	
Pharmaceutical Jurisprudence [Theory | Regular]	
CO ID.	Course Outcome
Course outcome not yet added by the respective faculty.(Mrs. Bindu Jacob)	
501T Medicinal Chemistry II [Theory | Regular]	
CO ID.	Course Outcome
CO1.	Understand the chemistry of drugs with respect to their pharmacological activity.
CO2	Understand the drug metabolic pathways, adverse effect and therapeutic value of drugs.
CO3	Know the Structural Activity Relationship of different class of drugs.
CO4	Study the chemical synthesis of selected drugs.
BP 508 P Pharmacognosy and Phytochemistry II [Practical | Regular]	
CO ID.	Course Outcome
CO1	Remember the morphological and microscopical characteristics of Crude Drugs
CO2	Create method for isolation of phytoconstituents from crude drugs
CO3	Analysis of isolated phytoconstituents from crude drugs
CO4	Demonstrate and understand the Concept of Paper and Thin Layer Chromatography of Herbal Extracts
CO5	Understand the principle involved in Isolation and analysis of volatile oils
CO6	Implement different chemical tests for the identification of unorganized crude drugs
BP502T Industrial Pharmacy I [Theory | Regular]	

CO ID.	Course Outcome
CO1	Relate the physicochemical properties of drugs to dosage form characteristics
CO2	Propose the formulations of specific drugs in various dosage forms and select ingredients according to their types
CO3	Create a new formula for preparation of dosage form and make use of different equipments for solid,liquid,semisolid and parenteral dosage form
CO4	Prepare and evaluate different dosage forms and perform quality control tests
CO5	Prepare and evaluate injections,eye drops and eye ointments
CO6	Select suitable packaging container for a dosage form and evaluate them

BP503. T. Pharmacology II [Theory | Regular]

CO ID.	Course Outcome
CO1,	understand the mechanism of action of drug action from different class and categories.
CO2	Know drug relevance in the treatment of various diseases and disorders.
CO3	Understand the clinical uses and adverse effects and contraindications of drugs acting on varoius systems of the body.
CO4	Understand basic concept of bioassay.
CO5	Appreciate correlation of pharmacology with related medical sciences

BP504T Pharmacognosy and Phytochemistry II [Theory | Regular]

CO ID.	Course Outcome
CO1	Explain the metabolic pathways leading to biosynthesis of various classes of natural products
CO2	Critically assess the utilization of radioactive isotopes in the investigation of biosynthetic pathways
CO3	Describe the source, chemistry, therapeutic uses of various secondary metabolites containing drugs.
CO4	Demonstrate the methods of isolation, identification and analysis of various phytoconstituents
CO5	Describe the methods for industrial production, estimation and utilization of some therapeutically important phytoconstituents
CO6	Learn about modern extraction technique, characterization and identification of the herbal drug and phytoconstituents
CO7	Understand the utility of latest techniques for analysis of phytoconstituents

BP506P Industrial Pharmacy I [Practical | Regular]

CO ID.	Course Outcome
CO1	Prepare formulations of different dosage forms as per the formula and select ingredients according to type of Tablets
CO2	Select suitable packaging container for a dosage form
CO3	Relate the physicochemical properties of drugs to dosage form characteristics
CO4	Evaluate different dosage forms by performing quality control tests
CO5	Create a new formula for preparation of dosage form and make use of different equipments
CO6	Prepare and evaluate Injections
CO7	Prepare cold cream and Vanishing cream

BP507. P. Pharmacology II [Practical | Regular]

CO ID.	Course Outcome
CO1	Understand in-vitro pharmacology and various physiological salt solutions.
CO2	Demonstrate isolation of different organs/tissues from the laboratory animals by computer simulation experiments, and various bioassay methods in experimental pharmacology.
CO3	Demonstrate the various receptor actions using isolated tissue preparation.
CO4	Understand different screening techniques of drugs from category of NSAIDs, by using computer simulation method.
CO5	Understand the effects of ions and drugs on isolated tissue/organ preparation.

Seventh Semester

Novel Drug Delivery System [Theory | Regular]

CO ID.	Course Outcome
Course outcome not yet added by the respective faculty.(Mrs. Bindu Jacob)	
Instrumental Methods of Analysis [Practical | Regular]	
CO ID.	Course Outcome
Course outcome not yet added by the respective faculty.(No faculty assigned.)Course outcome not yet added by the respective faculty.()Course outcome not yet added by the respective faculty.()Course outcome not yet added by the respective faculty.()	
703T Pharmacy Practice [Theory | Regular]	
CO ID.	Course Outcome
CO1	To understand the elements of hospital and hospital pharmacy
CO2	To know various drug distribution methods in a hospital
CO3	To grasp the significance of pharmaceutical services, clinical services and patient care services
CO4	To understand the community pharmacy management and inventory control
CO5	To appreciate the concept of Rational drug therapy
CO6	To provide integrated, critically analysed drug and poison information to enable healthcare professionals in the efficient patient management
CO7	To Interpret the laboratory results to aid the clinical diagnosis of various disorders
BP701T Instrumental Methods of Analysis [Theory | Regular]	
CO ID.	Course Outcome
CO1	1. Understand the chromatographic separation and analysis of drug.
CO2	Perform quantitative and qualitative analysis of drugs using chromatographic techniques.
CO3	Perform qualitative and quantitative analysis of substances using chromatographic instruments.
CO4	To understand the interaction of matters with electromagnetic radiations and its application in drug analysis.
BP702T Industrial Pharmacy II [Theory | Regular]	
CO ID.	Course Outcome
CO1	Know the pilot plant process and scale-up of pharmaceutical dosage forms
CO2	Understand the process of technology transfer from lab scale to commercial batch
CO3	Know different laws and acts that regulate pharmaceutical industry
CO4	Understand the approval process and regulatory requirement for drug products
BP706PS Practice School [Practical | Regular]	
CO ID.	Course Outcome
CO1	Gain updated information on cosmetic science; properties of the skin, hair and nails and the cosmetic products and ingredients that may actively affect these properties.
CO2	Apply information gained to make cosmetic formulations correctly and effectively for probable commercial use
CO3	Recognize the ingredient(s) that can be effective or problematic for an individual with specific needs or complaint.
CO4	Make comparisons between the cosmetic products and evaluate their suitability for a particular need.
CO5	Critically review, analyse, and evaluate scientific data and basic research in cosmetic science.