Gurunanak College of Pharmacy, Nari,Nagpur - 440026

B. Pharmacy [2020-21]

Subjectwise Course Outcome - [FY-FIRST SEMESTER]

- BP101T Human Anatomy and Physiology -I [Theory]

CO No.	Course Outcome
CO1	Explain the relevance and significance of Human Anatomy and Physiology to Pharmaceutical Sciences.
CO-2	Explain basic terminologies used in anatomy and physiology as well as prefixes & suffixes used to identify body parts and directional terms.
CO-3	Describe the various homeostatic mechanisms and their imbalances.
CO-4	Identify the various tissues and organs of different systems of human body.
CO-5	Explain the gross morphology, structure and functions of various organs of the human body.

BP102T Pharmaceutical Analysis- I [Theory]

CO No.	Course Outcome
CO1	Understand the fundamental concept of pharmaceutical analysis
CO2	Learn methods to prepare different strengths of solutions
CO3	Understand sources of errors
CO4	Learn the fundamentals of volumetric analytical skills
CO5	Understand principles of volumetric and electro-chemical titrations

Pharmaceutics -I [Theory]

CO No.	Course Outcome
CO1	To know the history of profession of pharmacy.
CO2	To understand the basics off different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations.
CO3	To understand the professional way of handling the prescriptions.
CO4	Preparation of various conventional dosage forms.

Pharmaceutical Inorganic Chemistry [Theory]

CO No.	Course Outcome
PIC.CO1	Know the sources of impurities
PIC.CO2	Know the methods to determine the impurities in inorganic drugs and pharmaceuticals
PIC.CO3	Understand the medicinal and pharmaceutical importance of inorganic compounds

Communication skills [Theory]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Remedial Biology/Remedial Mathematics [Theory]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Human Anatomy and Physiology [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Pharmaceutical Analysis I [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Pharmaceutics I [Practical]

CO No.	Course Outcome
CO1	Formulation of various liquid pharmaceutical dosage forms.
CO2	Fofrmulation and preparation of semisolid dosage forms.
CO3	Formulation and preparation of solid dosage forms.
CO4	Design proper labels for the prepared formulations

Pharmaceutical Inorganic Chemistry [Practical]

CO No.	Course Outcome
CO1	Perform the limit tests of impurities
CO2	Identify inorganic compounds
CO3	Perform tests for purity of pharmaceuticals

CO4	Synthesize inorganic compounds

Communication Skills [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Remedial Biology [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [FY-SECOND SEMESTER]

Human Anatomy and Physiology II [Theory]

CO No.	Course Outcome
CO1	Explain the gross morphology, structure and functions of various organs of thehuman body.
CO2	Describe the various homeostatic mechanisms and their imbalances.
CO3	Identify the various tissues and organs of different systems of the human body.
CO4	Appreciate coordinated working pattern of different organs of each system
CO5	Appreciate the interlinked mechanisms in the maintenance of normal functioning(homeostasis) of human body.

Biochemistry [Theory]

CO No.	Course Outcome
CO-1Biochem	Learn about various biochemical reactions occurring in human body and how they are helpful in metabolism.
CO-2Biochem	Know about various biomolecules in human body playing important role in various biochemical reactions.
CO-3Biochem	Understand the metabolism of nutrient molecules and other biomolecules in physiological and pathological conditions.
CO-4Biochem	Understand the catalytic role of enzymes, importance of enzyme inhibitors in design of new drugs, therapeutic and diagnostic applicati enzymes.
CO-5Biochem	Understand the genetic organization of mammalian genome and functions of DNA in the synthesis of RNAs and proteins.

Pharmaceutical Organic Chemistry I [Theory]

CO No.	Course Outcome
CO 1	To write the structure, name and the type of isomerism of the organic compound
CO 2	To write the reaction, name the reaction and orientation of reactions
CO 3	account for reactivity/stability of compounds,
CO 4	identify/confirm the identification of organic compound

Pathophysiology [Theory]

CO No.	Course Outcome

CO1	Describe etiology and pathogenesis of the selected disease states.
CO2	Name the signs and symptoms of the disease.
CO3	To understand the body's immune responses .
CO4	Describe the healing and recuperation in a human body.

Envoirnmental Sciences [Theory]

CO No.	Course Outcome
CO1	Create awareness about environmental problems among learners
CO2	Impart basic knowledge about the environment and its allied problems.
CO3	Develop an attitude of concern for the environment.
CO4	Motivate learners to participate in environment protection and environment improvement
CO5	Acquire skills to help the concerned individuals in identifying and solving environmental problems.
CO6	Strive to attain harmony with Nature.

BP205T Computer Applications in Pharmacy [Theory]

CO No.	Course Outcome
CO1	After completing this course, students will be able to - Know the various types of application of computers in pharmacy
CO2	After completing this course, students will - Know the various types of databases and understand ways to use them.
CO3	Understand introduction programming languages, use of databases in pharmacy

Human Anatomy and Physiology II [Practical]

CO No.	Course Outcome
CO1	Perform the hematological tests like blood cell counts, haemoglobin estimation,bleeding/clotting time etc and also record blood pressure, hear pulse andrespiratory volume.
CO2	Perform the hematological tests and also record blood pressure, heart rate, pulse andrespiratory volume.

Biochemistry [Practical]

CO No.	Course Outcome
COP-1Biochem	Understand and perform qualitative analysis of carbohydrates and proteins.
COP-2Biochem	Understand and perform quantitative analysis of sugars and proteins
COP-3Biochem	Know about abnormal constituents of urine and perform qualitative analysis of them.
COP-4Biochem	Learn to perform quantitative estimation of blood creatinine, blood sugar and serum total cholesterol.

COP-5Biochem	Learn about enzyme action and effect of temperature and substrate concentration on it.
COP-6Biochem	Know about buffer, its action and preparation

Pharmaceutical Organic Chemistry I [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Computer Applications in Pharmacy [Practical]

CO No.	Course Outcome
CO1	Design an MS WORD document
CO2	Create a HTML webpage
CO3	Create database in MS Access

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [SY-THIRD SEMESTER]

BP301T Pharmaceutical Organic Chemistry II [Theory]

CO No.	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.

Physical Pharmaceutics I [Theory]

CO No.	Course Outcome
CO1	Define and remember various physico-chemical properties (partition coefficient, solubility, Rf etc) of drug molecules, drug Protein complexatic 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 molecu 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.

Pharmaceutical Microbiology [Theory]

CO No.	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 Engineering [Theory]

CO No.	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]

CO No.	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.

Physical Pharmaceutics I [Practical]

CO No.	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

Pharmaceutical Microbiology [Practical]

CO No.	Course Outcome
COP-1	Know about various instruments and equipment, their working and uses, used in pharmaceutical microbiology laboratory.
COP-2	Demonstrate practical skills in fundamental microbiological techniques like media preparation, subculturing, streaking staining etc.
COP-3	Learn various methods of sterilization used for different type of materials, surfaces and environment.
COP-4	Perform specialized methods for their isolation, detection, observation and identification of microorganisms in various samples.
COP-5	Acquire and apply the theories and principles of microbiology in practical, professional life, real-world situations and problems.

Pharmaceutical Engineering [Practical]

CO No.	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

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [SY-FOURTH SEMESTER]

BP401T Pharmaceutical Organic Chemistry III [Theory]

CO No.	Course Outcome
CO1	understand the method of preparation of organic compounds
CO2	understand the properties of organic compounds
CO3	explain the stereo chemical aspects of organic compounds
CO4	explain the stereo chemical reactions of organic compounds
CO5	know the medicinal uses of organic compounds
CO6	know the application of organic compounds

BP402T Medicinal Chemistry I [Theory]

CO No.	Course Outcome
CO1	Explain the various physiochemical properties and drug metabolism in relation to biological activity
CO2	Explain SAR of some important drug classes and mode of action, uses and side effects at molecular level.
CO3	Summarise synthesis of the important class of compounds.
CO4	Explain drugs acting on the adrenergic nervous system and cholinergic nervous system.
CO5	Discuss the drugs acting as CNS depressants: Anticonvulsants, Antipsychotics, Sedatives & Hypnotics.
CO6	Describe drugs acting on CNS: General Anaesthetics, Narcotic and Non-Narcotic analgesics and Narcotic antagonists & anti-inflammatory agen

Physical Pharmaceutics II [Theory]

CO No.	Course Outcome
CO1	Understand and explain the properties and principles of dispersed systems, rheology and micromeretics.
CO2	Describe the fundamental and derived properties of powders and their applications in the formulation design.
CO3	Identify and interpret (theoretical) rheological, micromeritics and dispersion factors to be consider for pharmaceutical dosage form design.
CO4	Outline the reaction kinetics, rate, order and factors affecting the rate of reaction; prevent degradation, stabilization of drugs and shelf-life asses and to describe the reaction kinetics of dosage forms.

Pharmacology I [Theory]

CO No.	Course Outcome

CO1	Describe the basics of general pharmacology and concepts of pharmacokinetics, pharmacodynamics, adverse drug reaction and drug interactions
CO2	Explain the process by which new drugs are discovered, developed and clinically evaluated
CO3	Understand the pharmacological actions along with adverse effects, drug interaction, contraindication and therapeutic uses of drugs acti autonomic nervous system and Central nervous system
CO4	Explain the mechanism of drug action at organ system/sub cellular/macromolecular levels
CO5	Apply the basic pharmacological knowledge in the prevention and treatment of various diseases

BP405T Pharmacognosy and Phytochemistry I [Theory]

CO No.	Course Outcome
CO1	Demonstrate knowledge of basic concept in the principle of Pharmacognosy and classification of crude drug.
CO3	List the factors affecting cultivation and the methods used for collection and preparation of crude drug for the market.
CO2	Apply the knowledge of evaluation techniques for the quality control of herbal drugs
CO5	Explain various alternative and complementary system of Medicine.
CO6	Categorize the different types of secondary metabolites
CO7	Understand and remember the Biological sources, chemical nature and uses of drugs of natural origin
CO4	Apply the knowledge of Plant Tissue Culture techniques in the field of Pharmacognosy

BP406P Medicinal Chemistry I [Practical]

CO No.	Course Outcome
CO1	To perform preparation, understand reaction mechanisms and purification by recrystallization of drugs or intermediates.
CO2	To perform assay on drugs.
CO3	To find out partition coefficient and dissociation constant of organic and medicinal compounds.

Physical Pharmaceutics II [Practical]

CO No.	Course Outcome
CO1	Demonstrate the procedural part involved in the determination of fundamental properties of powder, rheological properties of liquid and r reaction in stability studies.
CO2	To know the concept of accelerated stability studies.
CO3	Evaluate and interpret the effect of various suspending agents and lubricants effect on sedimentation parameters, viscosity of formulation an properties of powder respectively.

Pharmacology I [Practical]

CO No.	Course Outcome

CO1	Understand different laboratory animals & different instruments used in experimental pharmacology
CO2	Demonstrate the common laboratory techniques like dissection, blood withdrawal, anaesthesia and euthanasia
CO3	Evaluate drugs for their activity in experimental animals using different sophisticated instruments
CO4	Observe the effect of drugs on animals by simulated experiments by software and videos

BP408 P Pharmacognosy and Phytochemistry I [Practical]

CO No.	Course Outcome
CO1	Implement different chemical tests for the identification of unorganized crude drugs
CO2	Explain the significance of quantitative microscopy with respect to leaf constants and lycopodium spore method
CO3	Perform linear measurements for crude drug identification
CO4	Evaluate different quality control parameters for standardization of herbal drugs

Computer Applications in Pharmacy [Practical]

CO No.	Course Outcome
CO1	Design an MS WORD document
CO2	Create a HTML webpage
CO3	Create database in MS Access

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [TY-FIFTH SEMESTER]

Medicinal Chemistry II [Theory]

CO No.	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.

BP502T Industrial Pharmacy I [Theory]

CO No.	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 fo
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

Not yet updatedBP503 Pharmacology II [Theory]

CO No.	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.

BP504 T Pharmacognosy and Phytochemistry II [Theory]

CO No.	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

Pharmaceutical Jurisprudence [Theory]

CO No.	Course Outcome
CO1	To understand the Pharmaceutical legislations and their implications in the development and marketing
CO2	Describe the various indian pharmaceutical acts and laws
CO3	To study about the various regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals
CO4	To understand the code of ethics during the pharmaceutical practice.

Industrial Pharmacy I [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Pharmacology II [Practical]

CO No.	Course Outcome
CO1	Know in-vitro pharmacology and various physiological salt solutions.
CO2	Demonstrate isolation of different organs/tissues from the laboratory animals by computer simulation experiments.
CO3	Demonstrate the various receptor actions using isolated tissue preparation.
CO4	Know screening techniques of drugs from category of NSAIDs.
CO5	Know the effects of ions and drugs on isolated tissue/organ preparation.

BP 508 P Pharmacognosy and Phytochemistry II [Practical]

CO No.	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

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [TY-SIXTH SEMESTER]

BP601T Medicinal Chemistry III [Theory]

CO No.	Course Outcome
CO1	Understand the importance of drug design and different techniques of drug design
CO2	understand the chemistry of drugs with respect to biological activity
CO3	Know the metabolism, adverse effects and therapeutic value of drugs
CO4	Know the importance of SAR of drugs

Pharmacology III [Theory]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Herbal Drug Technology [Theory]

CO No.	Course Outcome
CO1	Define various terminologies like herbal medicines, organic farming, biopesticides,neutraceuticals,asavas, arishtas, churnas,bhasma,patents
CO2	Classify neutraceuticals, herbal cosmetics,Ayurvedic dosage forms, herbal exipients, herbal formulations, biopesticides, herb-drug interactions
CO3	Elaborate various component parts of GMP for the production of phytomedicines.
CO4	Explain the role of herbal raw materials and herbal extracts in various herbal cosmetics.
CO5	Explain the role of various phytoconstituents present in traditional plant drugs used in herbal formulations.

BP604T Biopharmaceutics and Pharmacokinetics [Theory]

CO No.	Course Outcome
CO1	Define the basic concepts in biopharmaceutics and pharmacokinetics

Pharmaceutical Biotechnology [Theory]

CO No.	Course Outcome
CO1	Understand the importance of Immobilized enzymes in Pharmaceutical Industries

CO2	Genetic engineering applications in relation to production of pharmaceuticals
CO3	Understand the importance of Monoclonal antibodies in Industries
CO4	Appreciate the use of microorganisms in fermentation technology

BP606T Quality Assurance [Theory]

CO No.	Course Outcome
CO1	Upon completion of this course, students will be able to - Understand the cGMP aspects in a pharmaceutical industry
CO2	Upon completion of this course, students will be able to - Understand various regulatory guidelines to comply with and importa documentation
CO3	Upon completion of this course, students will be able to - understand the scope of quality certifications applicable to pharmaceutical indust
CO4	Upon completion of this course, students will be able to - understand the responsibilities of Quality Assurance & Quality Control department
CO5	After this course completion, students will be able to - Apply regulatory rules in pharmaceutical labs and industries

Medicinal Chemistry III [Practical]

CO No.	Course Outcome
CO1	To perform preparation, understand reaction mechanisms and purification by recrystallization of drugs or intermediates.
CO2	To perform assay on drugs.
CO3	To find out partition coefficient and dissociation constant of organic and medicinal compounds.

Pharmacology III [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Herbal Drug Technology [Practical]

CO No.	Course Outcome
CO1	Determine the alcohol contents of Asavas and Arishtas
CO2	Apply the knowledge of thin layer chromatography(TLC) to analyse the herbal extracts of ritha, shikakai,clove, kalmegh, bramhi qualitativel respect to quality and purity.
CO3	Develop the qualitative fingerprint profile of clove oil, eucalyptus oil and peppermint oil.
CO4	Explain the procedure for the estimation/determination of total alkaloids of the crude drugs such as cinchona bark.
CO5	Formulate and evaluate the various herbal cosmetics like creams, lotions and shampoos and herbal dosage forms like syrups, tablets and mixtu

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [FINAL YEAR-SEVENTH SEMESTER]

BP Instrumental Methods of Analysis [Theory]

CO No.	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.

Industrial Pharmacy II [Theory]

CO No.	Course Outcome
CO1	Know the process of pilot plant 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 requirements for drug products

Pharmacy Practice [Theory]

CO No.	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
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

BP 704T Novel Drug Delivery System [Theory]

CO No.	Course Outcome
CO1	Upon completion of NDDS course, students shall be able to understand various approaches for development of novel drug delivery systems
CO2	Upon completion of NDDS course, students shall be able to To understand the criteria for selection of drugs and polymers for the development of drug delivery systems, their formulation and evaluation

CO3	Upon completion of NDDS course, students shall be able to correlate various factors influencing formulation and development of novel drug d systems.
CO4	The students will be able to apply strategies in selecting physical form of the formulation, formulation technologies and evaluation tests.

Pharma Marketing Management (Practice School) [Theory]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Cosmetic Science (Practice School) [Theory]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Quality Control and Standardization of Herbals (Practice School) [Theory]

CO No.	Course Outcome
CO1	Define various terminologies like biological markers, chemical markers, medicinal plant materials, pharmaceutical substances.
CO2	Elaborate the various component parts of GMP, GLP, GAP in traditional system of medicine.
CO3	Explain the various parameters used in the evaluation of herbal drugs as per WHO guidelines, EU and ICH guidelines.
CO4	Classify various chromatographic techniques used in the standardization of herbal products.
CO5	Explain the role of chemical and biological markers in the standardization of herbal products.

Diagnostic Tools (Practice School) [Theory]

CO No.	Course Outcome
CO1	Understand the importance of Immobilized enzymes in Diagnosis
CO2	Genetic engineering applications in Diagnosis
CO3	Understand the importance of Monoclonal antibodies in Diagnosis
CO4	Appreciate the mechanism of working of various diagnostic tools

Experimental Pharmacology (Practice School) [Theory]

CO No.	Course Outcome
CO1	Understand the applications of various commonly used laboratory animals, their handling and legal requirement
CO2	Demonstrate the common laboratory techniques like dissection, blood withdrawal, Breeding techniques, Surgical techniques

CO3	Design and execute a preclinical experiment

BP705P Instrumental Methods of Analysis [Practical]

CO No.	Course Outcome
CO1	identification and separation of compounds by chromatography
CO2	Separation and purification of compounds by different chromatographic techniques
CO3	understand the interaction of matter with electromagnetic radiations and its application in drug analysis
CO4	understand the chromatographic separation and analysis of drug
CO5	Perform quantitative and qualitative analysis of drugs using various analytical instruments

Pharma Marketing Management (Practice School) [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Cosmetic Science (Practice School) [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Quality Control and Standardization of Herbals(Practice School) [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Diagnostic Tools (Practice School) [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

Experimental Pharmacology(Practice School) [Practical]

CO No.	Course Outcome
Course outcome not yet added by the respective faculty.	

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B. Pharmacy [2020-21]

Subjectwise Course Outcome - [Final Year Eighth semester]

Biostatistics and Research Methodology [Theory]

CO No.	Course Outcome
CO1	Know the operation of M.S. Excel, SPSS, R and MINITAB
CO2	Know the various statistical techniques to solve statistical problems
CO3	Appreciate statistical techniques in solving the problems.
CO4	Know online software used in clinical trials

Social and Preventive Pharmacy [Theory]

CO No.	Course Outcome
CO1	After the successful completion of this course, the student shall be able to:Acquire high consciousness/realization of current issues related to andpharmaceutical problems within the country and worldwide.
CO2	To have a critical way of thinking based on current healthcare development.
CO3	Evaluate alternative ways of solving problems related to health andpharmaceutical issues

BP809ET Cosmetic Science [Theory]

CO No.	Course Outcome
CO1	Classify and define Cosmetics and Cosmeceuticals as per Indian and EU regulations
CO2	Describe the role of cosmetic excipients and building blocks in the formulation of cosmetics
CO3	Explain the structure and function of the skin, hair, teeth and gums
CO4	Describe the fundamentals of sun protection and the formulation of Sunscreens, antiperspirants and deodorants
CO5	Design, Formulate and Evaluate cosmetics and cosmeceuticals (synthetic and herbal) for skin care and hair care as well as dental and oral care
CO6	Design cosmetics and cosmeceuticals that address the problems of dry skin, acne, dermatitis, prickly heat, wrinkles, blemishes, hair fall, Da body odour, bleeding gums, mouth odour, teeth discoloration and sensitive teeth.

Pharmaceutical Marketing [Theory]

CO No.	Course Outcome
CO1	To understand the marketing concepts.
CO2	To understand the techniques and applications of marketing concepts in pharmaceutical industry.

CO3	To find out and understand the various emerging concepts in marketing.
CO4	To study about the promotion methods and the role of sales representatives in functioning marketing channels.

Quality Control and Standardization of Herbals [Theory]

CO No.	Course Outcome
CO1	Define various terminologies like biological markers, chemical markers, medicinal plant materials, pharmaceutical substances.
CO2	Elaborate the various component parts of GMP, GLP, GAP in traditional system of medicine.
CO3	Explain the various parameters used in the evaluation of herbal drugs as per WHO guidelines, EU and ICH guidelines.
CO4	Classify various chromatographic techniques used in the standardization of herbal products.
CO5	Explain the role of chemical and biological markers in the standardization of herbal products.

BP813PW Project Work [Practical]

CO No.	Course Outcome
CO1	Identify the problems associated with skin care,hair care and body care. Discover the problems associated with existing formulations .
CO2	Take part in carrying out research and make use of published literature and patents
CO3	Justify the project topic, Compile or create,design or plan for a suitable formulation,its evaluation and interpret ,discuss results and draw conclus
CO4	Perceive alternatives to problem , make use of herbal and synthetic drugs and additives and improve critic skill,presentation and communica Assess the commercial importance of new drug product