COURSE OUTCOMES

Course outcomes for UG Program

F. Y. B. Pharm (2019, PCI pattern) **Semester I**		
Course/Course code		**Course outcomes**
BP101T Human Anatomy and Physiology I (Theory)	**CO1**	Recall morphology, structure and functions of cell, skeletal, muscular, cardiovascular system of the human body.
	CO2	Tell various homeostatic mechanisms and their imbalances.
	CO3	Explain various tissues of different systems of human body.
	CO4	Explain coordinated working pattern of different organs of each system.
	CO5	Classify different types of bones in human body.
BP107P Human Anatomy and Physiology-I (Practical)	**CO1**	Recall relevance and significance of Human Anatomy and Physiology to Pharmaceutical Sciences.
	CO2	Summarize the various tissues of different systems of human body.
	CO3	Understand the composition and functions of blood component and mechanism of blood coagulation.
	CO4	Demonstrate experimental techniques related to physiology.
	CO5	Experiment with blood group determination, blood pressure measurement, blood cells counting.
BP102T Pharmaceutical Analysis –I (Theory)	**CO1**	Define the terminologies of volumetric analysis.
	CO2	Classify the types of titrimetric processes.
	CO3	Explain the principle of titrimetric analytical techniques.
	CO4	Compare the advantages and disadvantages of different titrimetric processes.
	CO5	Identify the appropriate analytical method for the analysis of drugs.
BP108P Pharmaceutical Analysis –I (Practical)	**CO1**	Name various volumetric glassware's.
	CO2	Demonstrate the titration process.
	CO3	Relate the theoretical concepts to the designed experiments.
	CO4	Interpret the analytical data.
	CO5	Apply the knowledge of volumetric analysis in the preparation of reagents and solutions.
BP103T Pharmaceutics-I	**CO1**	Classify pharmaceutical dosage forms.
	CO2	Identify their professional role in the healthcare system.

(Theory)	**CO3**	Apply principles of pharmaceutical science in formulation and dispensing the various dosage forms.
	CO4	Solve the problem through the application of fundamental principles of pharmaceutical metrology.
	CO5	Apply pharmacopeial standards for the preparation of various dosage forms.
BP109P Pharmaceutics-I (Practical)	**CO1**	Extend the acquired knowledge for the preparation of dosage forms.
	CO2	Recommend and follow approaches to avoid incompatibilities and unwanted interactions.
	CO3	Experiment with correct quantity of active and inactive pharmaceutical ingredients.
	CO4	Apply the knowledge for selection of dosage form for treatment of diseases.
	CO5	Demonstrate the quality control test for dosage forms.
BP104T Pharmaceutical Inorganic Chemistry-I (Theory)	**CO1**	Recall the significance of inorganic compounds as medicines.
	CO2	Classify the inorganic compounds according to therapeutic category.
	CO3	Explain the mechanism of action of pharmaceutically useful Inorganic compounds.
	CO4	Summarize the official pharmaceutical Inorganic compounds.
	CO5	Extend the acquired knowledge towards newly launched inorganic formulations.
BP110 P Pharmaceutical Inorganic Chemistry-I (Practical)	**CO1**	Name various pharmaceutical inorganic compounds.
	CO2	Compare the properties inorganic compounds.
	CO3	Demonstrate the identification tests for inorganic compounds.
	CO4	Apply the knowledge for inorganic compounds.
	CO5	Develop skill for performing monograph studies.
BP105T Communication Skill (Theory)	**CO1**	Understand the knowledge of soft's kills and communication skill.
	CO2	Understand the concept of teamwork, leadership, personal development skills.
	CO3	Acquire the knowledge of body language and presentation skill.
	CO4	Acquire the knowledge of technical writing skill.
	CO5	Identify the concept of positive thinking that keeps the students in a good stead at the time of crisis.
BP111 P Communication Skill (Practical)	**CO1**	Demonstrate interview skills.
	CO2	Develop Leadership qualities and essentials.
	CO3	Explain behavioral needs for a Pharmacist to function effectively in the areas of pharmaceutical operation.

	CO4	Demonstrate communicate effectively (Verbal and Non Verbal).
BP106 RBT Remedial Biology (Theory)	**CO1**	Recall animal & plant cellular biology.
	CO2	Know classification system of both plants & animals.
	CO3	Describe various tissue system and organ system in plant and animals.
	CO4	Discuss theory of evolution.
	CO5	Describe Anatomy and Physiology of plants and animals.
BP 112 RBP Remedial Biology (Theory)	**CO1**	Identify various body component.
	CO2	Demonstrate basic components of anatomy & physiology of plant.
	CO3	List components of anatomy & physiology animal with special reference to human.
	CO4	Experiment with microscope for study of plant.
BP106 RMT Remedial Mathematics (Theory)	**CO1**	Express abstract mathematical reasoning.
	CO2	Describe mathematical knowledge and understanding to help in the field of Clinical Pharmacy.
	CO3	Apply mathematical concepts and principles to perform computations for Pharmaceutical Sciences.
	CO4	Create, use and analyze mathematical representations and mathematical relationships.
Semester II		
BP201T Human Anatomy and Physiology-II (Theory)	**CO1**	Define morphology, structure and functions of various organs of the human body.
	CO2	Identify the various tissues and organs of different systems of human body.
	CO3	Explain mechanisms in the maintenance of normal functioning (homeostasis) of human body.
	CO4	Explain detailed about energy and metabolism.
BP207P Human Anatomy and Physiology-II (Practical)	**CO1**	Perform experiments with like neurological reflex, body temperature measurement.
	CO2	Perform experiments like olfaction, gestation reflex and eye sight.
	CO3	Perform the hematological tests like blood cell counts, hemoglobin estimation, bleeding/clotting time etc.
BP202T Pharmaceutical Organic Chemistry-I (Theory)	**CO1**	Classify the organic compounds.
	CO2	Explain the applications of organic Chemistry.
	CO3	Demonstrate the stereo models for the study of stereochemistry.
	CO4	Apply the principle of organic chemistry for pharmaceuticals.
	CO5	Develop an approach for organic synthesis.

BP208P Pharmaceutical Organic Chemistry-I (Practical)	**CO1**	Recognize the various organic compounds by their structures.
	CO2	Classify the heterocyclic compounds based on their ring structures.
	CO3	Apply IUPAC nomenclature to the simple heterocyclic compounds.
	CO4	Draw structures of the simple heterocyclic compounds.
	CO5	Write the reactions of heterocyclic compounds.
BP203T Biochemistry I (Theory)	**CO1**	Know catalytic role of enzymes, importance of enzyme inhibitors in design of new drugs, therapeutic and diagnostic applications of enzymes.
	CO2	Recall Structure and function of genome.
	CO3	Explain nutrient metabolism in physiological & pathological conditions.
	CO4	Explain functions of DNA in the synthesis of RNAs and proteins.
BP209 P Biochemistry I (Practical)	**CO1**	Perform experiments with qualitative and quantitative estimation of the biological macromolecules.
	CO2	Interpretation of data emanating from a clinical test lab.
	CO3	Explain physiological conditions influence the structures and reactivities of biomolecules.
BP204T Pathophysiology (Theory)	**CO1**	Name the signs and symptoms of the diseases.
	CO2	Describe the etiology and pathogenesis of the selected disease states.
	CO3	Explain the complications of the diseases.
BP205T Computer Application in Pharmacy (Theory)	**CO1**	Know the various types of application of computer in pharmacy.
	CO2	Know the various types of data base.
	CO3	Know the various application of database in pharmacy.
	CO4	Applying data analysis in preclinical development.
P210P Computer Application in Pharmacy (Practical)	**CO1**	Creating and working with database.
	CO2	Design and development of database.
	CO3	Evaluate table form database.
	CO4	Retrieving information from database.
BP206T Environmental Science (Theory)	**CO1**	Know about the environment and its allied problems.
	CO2	Support to attain harmony with Nature.
	CO3	Create the awareness about environmental problems among learners.
	CO4	Develop skills to identifying and solving environmental problems.
S. Y. B. Pharm (2019, PCI pattern) Semester III		
BP301T Pharmaceutical Organic	**CO1**	Recall structure, name and the type of isomerism of the organic compound.

chemistry-II (Theory)	**CO2**	List of reaction, name the reaction and orientation of reactions.
	CO3	Explain reactivity/stability of compounds.
	CO4	Explain general methods of preparation of organic compounds.
BP305P Pharmaceutical Organic Chemistry-II (Practical)	**CO1**	Identify mechanisms and orientation of chemical reactions.
	CO2	Perform experiment with synthesis of organic compounds.
	CO3	Explain about the electrophilic and nucleophilic reactions.
BP302T Physical Pharmaceutics-I (Theory)	**CO1**	Understand various physicochemical properties of drug molecules in the designing the dosage forms.
	CO2	Calculate and adjust dosage and dose regimen of medication.
	CO3	Choose rationally the adjuvants used for delivery and in formulation of biologically active molecules.
	CO4	Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.
BP306P Physical Pharmaceutics-I (Practical)	**CO1**	Operate different pharmaceutical laboratory instruments used in determining various physical properties.
	CO2	Recommend, counsel and help patients to understand the method of administration of different disperse systems.
	CO3	Perform skillfully laboratory processes needed in pharmacy practice as determination of physical properties of solution and suspensions.
	CO4	Perform compounding, packing, labeling and dispensing of disperse systems accurately and safely.
BP303T Pharmaceutical Microbiology-I (Theory)	**CO1**	Basic Knowledge of morphological identification, nutrition, cultivation and preservation of various microorganisms.
	CO2	Explain importance and implementation of sterilization in pharmaceutical processing and industry.
	CO3	Explain cell culture technology and its applications in pharmaceutical industries.
	CO4	Plan in aseptic area without microbial contamination.
BP307P Pharmaceutical Microbiology-I (Practical)	**CO1**	Name equipment used for sterilization of pharmaceuticals.
	CO2	Demonstrate microbiological standardization of Pharmaceuticals.
	CO3	Identify various types of microorganism.
	CO4	Perform sterility testing of pharmaceutical products.
BP304T Pharmaceutical Engineering (Theory)	**CO1**	Define various unit operations and explain their importance.
	CO2	Define various separation& purification techniques and its significance in pharmacy.
	CO3	Name the devices controls the fluid flow for pharmaceutical liquid.

	CO4	Demonstrate newly emerging aspects of pharmaceutical engineering.
	CO5	Apply engineering principles to address issues in various pharmaceutical processes.
BP308P Pharmaceutical Engineering (Practical)	**CO1**	Recall fundamentals of unit operation& its significance in pharmacy.
	CO2	Name the various unit operation used in Pharma Industry.
	CO3	Explain importance of purification during pharmaceutical processing.
	CO4	Demonstrate application of unit operation in formulation development.
	CO5	Apply engineering principle for enhancement product output.
Semester IV		
BP401T Pharmaceutical Organic chemistry-III (Thoery)	**CO1**	Know the medicinal uses and other applications of organic compounds.
	CO2	Understand the methods of preparation and properties of organic compounds.
	CO3	Explain the stereo chemical aspects of organic compounds and stereo chemical reactions.
	CO4	Explain isomerism phenomena of drug.
BP402T Medicinal Chemistry-I (Theory)	**CO1**	Understand general structural features of substances having therapeutic value.
	CO2	Detailed chemistry, nomenclature along with physicochemical properties of the drugs.
	CO3	Know modes of actions and related adverse effects.
	CO4	Understand chemical influences on bio disposition, drug-drug interactions.
	CO5	Identify pathways for drug metabolism.
BP406P Medicinal Chemistry-I (Practical)	**CO1**	Recall the basic requirements for synthesis and assay of drugs.
	CO2	Explain the techniques involved in isolation and purification of drugs and intermediates.
	CO3	Analyze the selected drugs present in dosage forms and to determine the percentage purity.
	CO4	Determine the physicochemical property of drugs and draw its importance.
BP403T Physical Pharmaceutics-II (Theory)	**CO1**	Explain the role of particle size, electrolyte, and rheology in pharmaceuticals.
	CO2	Identify and explain the physicochemical and formulation properties of a drug that influence its absorption and stability.
	CO3	Know the principles of chemical kinetics and to use them for stability testing and determination of expiry date of formulations.
	CO4	Recognize basic rules and equations regarding physical principles

		essential for pharmaceutical applications.
	CO5	Demonstrate uses of physicochemical properties in the formulation development and evaluation of dosage forms.
BP407P Physical Pharmaceutics-II (Practical)	**CO1**	Operate different pharmaceutical laboratory instruments used in determining various physical properties such as surface tension, viscosity, particle size and complexes.
	CO2	Work effectively in a team to measure and understand various physical properties.
	CO3	Solve problems related to stability, flow property and compressibility.
	CO4	Perform skillfully some laboratory processes needed in pharmacy practice as determination of physical properties of powders and liquid dosage form.
BP404T Pharmacology-I (Theory)	**CO1**	Define the fundamental concepts of pharmacology and pharmacokinetics.
	CO2	Understand the basics of pharmacodynamics, adverse reactions, drug interactions and drug discovery.
	CO3	Identify the role of neurohumoral transmission and drugs acting on peripheral nervous system.
	CO4	Analyze the functions of neurotransmitters and drugs acting on central nervous system.
	CO5	Appraise the pharmacology of psychopharmacological agents.
BP408P Pharmacology-I (Practical)	**CO1**	Learn about basic instruments, common laboratory animals used in experimental pharmacology and to organize animal house as per the CPCSEA guidelines.
	CO2	Demonstrate the common laboratory techniques like routes of administration, blood withdrawal for animal studies.
	CO3	Interpret the effects of various drugs on animals and correlate with humans.
	CO4	Evaluate the pharmacological screening of drugs in rats/mice.
	CO5	Predict various screening models for anticonvulsant and anxiolytic activity.
BP405T Pharmacognosy & Phytochemistry-I (Theory)	**CO1**	Recall the history, scope and development of pharmacognosy.
	CO2	Remember different sources of crude drugs and also classify them accordingly.
	CO3	Illustrate students about cultivation, collection, processing and storage of crude drugs.
	CO4	Analyze quality of crude drugs.
	CO5	Plan systematic pharmacognostic study of primary metabolites, ayurvedic drugs, marine drugs and teratogens.

BP409P Pharmacognosy & Phytochemistry-I (Practical)	**CO1**	Remember different morphological and microscopical characteristic features of crude drugs.
	CO2	Understand the cellular structure of crude drugs.
	CO3	Evaluate the crude drugs by quantitative evaluation methods.
	CO4	Evaluate the crude drugs by physical methods of evaluation.
	CO5	Evaluate the crude drugs by chemical methods of evaluation.
T. Y. B. Pharm (2019, PCI pattern) **Semester V**		
BP501T Medicinal Chemistry- II (Theory)	**CO1**	Classify the medicinal compounds according to their chemical structure. Discuss the chemistry of drugs with respect to their pharmacological activity
	CO2	Explain the drug metabolic pathways, adverse effect and therapeutic value of drugs.
	CO3	Correlate the Structural Activity Relationship of different class of drugs.
	CO4	Apply the principle of organic chemistry for the synthesis of selected drugs.
BP502T Industrial Pharmacy-I (Theory)	**CO1**	Apply theoretical knowledge for development of various dosage forms.
	CO2	Solve incompatibility & degradation problem of drugs.
	CO3	Analyze relationships between environmental factor and dosage form instability.
	CO4	Explain comparison between different dosage form and their needs for community.
BP506P Industrial Pharmacy-I (Practical)	**CO1**	Identify various pathways of drug degradation through experiment.
	CO2	Solve the problem related to dispersion system by choosing appropriate excipients.
	CO3	Design and development modern dosage forms.
	CO4	Evaluate dosage form as per regulatory guidelines.
	CO5	Improve shelf life of life saving drug for community.
BP503T Pharmacology-II (Theory)	**CO1**	Relate the relative pros and cons in the use of drugs for various cardiac complications.
	CO2	Illustrate the drugs acting on hematopoietic system, shock diuretics and anti-diuretics.
	CO3	Identify the role of autacoids and related drugs.
	CO4	Analyze and summarize the drugs acting on endocrine system.
	CO5	Predict principles of bioassay and to construct the bioassay methods of various compounds.

BP507P Pharmacology-II (Practical)	**CO1**	Understand the concept of in-Vitro Pharmacology.
	CO2	Study the methods employed in in-Vitro Pharmacology.
	CO3	Evaluate the effect of drugs in preclinical models.
	CO4	Determination of drug concentration by bioassay.
BP504T Pharmacognosy and Phytochemistry-II (Theory)	**CO1**	Know the origin of various phytochemicals.
	CO2	Classify crude drugs from various phytochemical classes.
	CO3	Explain pharmacognostic account of crude drugs from phytochemical classes.
	CO4	Compare methods of extraction & underlying rationale of qualitative & quantitative analysis of various phytochemical classes.
	CO5	To know the modern extraction, isolation and identification and characterization techniques.
BP508P Pharmacognosy and Phytochemistry-II (Practical)	**CO1**	Identify the parts of plants from its morphological &microscopical features.
	CO2	Able to conduct extractions/isolations of phytochemicals.
	CO3	Able to separate, identify phytochemicals by chromatography & judge its quality relevance.
	CO4	Judge significance of chemical evaluation & its quality relevance.
BP505T Pharmaceutical Jurisprudence (Theory)	**CO1**	Recall the pharmaceutical legislations, ethics, right to information, medical termination of pregnancy and intellectual property rights.
	CO2	Relate the significance of Drugs and cosmetics act 1940 and its rules 1945 in relation to import and manufacture of drugs.
	CO3	Understand the functions of pharmacy councils and implementation of education regulations in pharmacy.
	CO4	Discuss the salient features of drugs and magic remedies act, prevention of cruelty to animal act and drugs price control order.
Semester VI		
BP601T Medicinal Chemistry-III (Theory)	**CO1**	Demonstrate the importance of chemistry in the development and application of therapeutic drugs.
	CO2	Develop an understanding of the physico-chemical properties of drugs.
	CO3	Understand how changes in the chemical structure of drugs affect efficacy.
	CO4	Understand how current drugs were developed and how new scientific techniques will provide future drugs.
	CO5	Provide ability to make optimal patient-specific therapeutic decisions in clinical set up.
BP607P	**CO1**	Define and select the method for preparation of drugs and intermediates.

Medicinal Chemistry-III (Practical)	**CO2**	Explain principle underlying the preparation of drugs.
	CO3	Choose the method for assay of drugs by quantitative analysis.
	CO4	Compare the advantages of microwave technique over conventional synthesis of drugs.
	CO5	Predict the relation between physicochemical properties and biological activity.
BP607P Medicinal Chemistry-III (Practical)	**CO1**	Define and select the method for preparation of drugs and intermediates.
	CO2	Explain principle underlying the preparation of drugs.
	CO3	Choose the method for assay of drugs by quantitative analysis.
	CO4	Compare the advantages of microwave technique over conventional synthesis of drugs.
	CO5	Predict the relation between physicochemical properties and biological activity.
BP602T Pharmacology- III (Theory)	**CO1**	Understand the mechanism of drug action and its relevance in the treatment of different infectious diseases.
	CO2	Comprehend the principles of toxicology and treatment of various poisonings.
	CO3	Appreciate correlation of pharmacology with related medical sciences.
BP608P Pharmacology- III (Practical)	**CO1**	Understand the concept of in-Vivo Pharmacology.
	CO2	Study the pathological assays methods employed in Pharmacology.
	CO3	Study bio statistical methods in experimental pharmacology and calculation of pharmacokinetic parameters.
BP603T Herbal Drug Technology (Theory)	**CO1**	Recall the fundamental concepts of herbal raw materials and biodynamic agriculture techniques.
	CO2	Understand the concept of nutraceuticals and herbal food interactions.
	CO3	Apply the knowledge for evaluation and preparation of herbal formulations.
	CO4	Remember the regulatory guidelines for the assessment of herbal drugs and patenting.
	CO5	Illustrate the scope and future prospects of the herbal drug industry.
BP609P Herbal Drug Technology (Practical)	**CO1**	Remember different preliminary phytochemical screening of crude drugs.
	CO2	Evaluate the various herbal formulations.
	CO3	Apply monographic analysis of herbal drugs as per pharmacopoeias.
	CO4	Evaluate parameters such as aldehyde and phenol contents.
BP604T Biopharmaceutics and	**CO1**	Recall human anatomy of human body.
	CO2	Recall various theories of dissolution of drug molecules.

Pharmacokinetics (Theory)	**CO3**	Relate different mechanism of absorption of compounds with respect to their biological membrane.
	CO4	Explain the linkage between absorption & the distribution of drug molecules.
	CO5	Explain in detail various mechanism of eliminations for drug molecules.
BP605T Pharmaceutical Biotechnology (Theory)	**CO1**	Remember the basic concepts of biotechnology with respect to enzyme technology, immunology, microbial technology, genetic engineering and protein engineering.
	CO2	Understand the steps involved in development of biosensors, recombinant products and concepts of immunology.
	CO3	Compare the genetic organization of different types of cells and to list detection methods at genomic level, gene transfer methods and mutagens.
	CO4	Explain general requirements of fermentative production and biotechnological production of pharmaceuticals.
	CO5	Elaborate on microbial genetics, biotransformation and various immunological products.
BP606T Quality Assurance (Theory)	**CO1**	Remember the concepts of quality assurance, quality management and ICH guidelines.
	CO2	Explain the ISO, NABL and QbD concepts in pharmaceutical industry.
	CO3	Analyze quality control parameters and good laboratory practices in pharmaceutical industry.
	CO4	Evaluate the complaints and documents maintenance in industry with required regulatory guidelines.
	CO5	Elaborate the calibration, validation procedures and good warehousing practices.
Final Y. B. Pharm (2019, PCI pattern) Semester VII		
BP701T Instrumental Methods of Analysis (Theory)	**CO1**	Understand selected instrumental analytical techniques for pharmaceuticals.
	CO2	Maximize knowledge on characterization and estimation of ions by spectroscopical techniques.
	CO3	Categorize different organic and inorganic compounds using suitable spectroscopic and chromatographic techniques.
	CO4	Elaborate various principles, theory and instruments employed for the characterization and analysis of drugs.
BP705P Instrumental Methods of Analysis	**CO1**	Recall the principle involved in spectroscopy and importance of absorption maximum in the estimation of organic compounds.
	CO2	Experiment with selected drugs by UV, Visible spectroscopy and

(Practical)		fluorimetry.
	CO3	Estimate the amount of sodium and potassium ions by flame photometry.
	CO4	Analyze the various organic compounds using turbidimetry.
BP702T Industrial Pharmacy-II (Theory)	**CO1**	Explains pilot plant scale up techniques and SUPAC guidelines.
	CO2	Outline various aspects of technology transfer involved from R & D to productions.
	CO3	Choose and to apply various responsibilities and regulatory requirements for drug approval.
	CO4	Analyze and study various quality management systems in pharmacy field.
	CO5	Determine the requirements and approval procedures for new drugs by Indian regulatory.
BP703T Pharmacy Practice (Theory)	**CO1**	Acquire the knowledge on organization of hospitals, various methods of distribution and hospital formulary in hospitals and apply it in the practice of pharmacy.
	CO2	Outline the organization and structure of community pharmacy and to build ability to design and run own community pharmacy.
	CO3	Demonstrate the knowledge of therapeutic drug monitoring, patient medication history interview and to apply the knowledge on assessment of drug related problems.
	CO4	Explain the principles of drug store management and inventory control methods during practice.
	CO5	Interpret clinical laboratory tests of specific disease states to provide better patient centered service.
BP704T Novel Drug Delivery System (Theory)	**CO1**	Explain needs & safety of novel pharmaceuticals for community.
	CO2	Justify proper use of Novel drug delivery system for various purposes.
	CO3	Understand and apply basic concepts of nanotechnology and nanoscience.
	CO4	Discuss & improve stability aspect of pharmaceutical for patient safety.
	CO5	Design & develop novel drug delivery system for community.
BP706PS Practice School	**CO1**	Develop familiarize with the aspects of realistic practice in the domain of interest.
	CO2	Develop knowledge and skills related to practical learning in the domain of interest.
	CO3	Analyze the problems encountered during realistic practice and make use of theoretical knowledge to resolve those problems.
Semester VIII		
BP801T	**CO1**	Explain the operation of M.S. Excel, SPSS, R and MINITAB, DoE

Biostatistics and Research Methodology (Theory)		(Design of Experiment).
	CO2	Explain the various statistical techniques to solve statistical problems.
	CO3	Appreciate statistical techniques in solving the problems.
BP802T Social and Preventive Pharmacy (Theory)	**CO1**	Examine consciousness/realization of current issues related to health and pharmaceutical problems within the country.
	CO2	Build the critical way of thinking based on current healthcare development.
	CO3	Evaluate alternative ways of solving problems related to health and pharmaceutical issues.
BP803ET Pharma Marketing Management (Theory)	**CO1**	Understanding of marketing concepts and techniques and their applications in the pharmaceutical industry.
	CO2	Survey marketing management groom the people for taking a challenging role in Sales and Product management.
	CO3	Distinction between marketing & selling environment; Industry and competitive analysis.
	CO4	Analyzing consumer buying behavior; industrial buying behavior.
	CO5	Discuss pricing methods and strategies, issues in price management in pharmaceutical industry.
BP805ET Pharmacovigilance (Theory)	**CO1**	Analyze Adverse drug reaction reporting systems and communication in pharmacovigilance.
	CO2	Explain Drug safety evaluation in pediatrics, geriatrics, pregnancy and lactation.
	CO3	Discuss Writing case narratives of adverse events and their quality.
	CO4	Discuss International standards for classification of diseases and drugs.
	CO5	Determine Detection of new adverse drug reactions and their assessment.
BP809ET Cosmetic Science (Theory)	**CO1**	Understand the principles of formulation and building blocks of various skin care products and hair care products.
	CO2	Discuss the role of herbs in cosmetics and analytical methods for cosmetics.
	CO3	Evaluate various cosmetics using analytical instruments.
	CO4	Apply the knowledge gained and develop cosmetics to solve problems associated with skin, hair and scalp.