BAPATLA COLLEGE OF PHARMACY

(Sponsored by Bapatla Education Society), (Recognized by A.I.C.T.E & PCI)
(Affiliated to Jawaharlal Nehru Technological University, Kakinada)
Bapatla, Guntur (Dist), AndhraPradesh-522101

Course Outcomes of B.Pharmacy Course subjects (PCI Regulation)

Course Code	Name	Course Outcome Number	Course Outcome
			At the end of each course, the student will be able to :
BP101T	**Human Anatomy and Physiology I (Theory)**	CO1	Describe gross anatomy of various levels of structural organization
		CO2	Demonstrate the anatomy of skin, skeletal system and joints.
		CO3	Summarize homeostatic mechanism including various body fluids and their circulation pathways
		CO4	Hypothesize coordinated working pattern of body by peripheral nervous systems including special senses
		CO5	Describe the gross anatomy and physiology of cardiovascular systems
BP102T	**Pharmaceutical Analysis I (Theory)**	CO1	Express the concentration terms of acids and bases, scope and importance of sample preparation and analytical procedures, pharmacopeial methods of analysis, pharmaceutical errors and impurities
		CO2	Discuss acid-base titrations and non-aqueous titrations
		CO3	Describe the principles involved in estimation of metal ions, primary aromatic amines and quantitative determination of analysis
		CO4	Determine the concentration of analyte by causing a redox reaction and its applications
		CO5	Explain the principles of electro-analytical techniques
BP103T	**Pharmaceutics I (Theory)**	CO1	Write about the history and opportunities of pharmacy profession in India.
		CO2	Categorize the various dosage forms.
		CO3	Explain about the components and handling of prescription.
		CO4	Calculate the dose as per age, body weight and surface area.
		CO5	Identify and rectify pharmaceutical incompatibilities in prescriptions.
		CO6	Summarize the basic concepts of various conventional dosage forms.
BP104T	**Pharmaceutical Inorganic Chemistry (Theory)**	CO1	Classify the Inorganic compounds and importance of impurities in pharmaceutical substances and their detection
		CO2	Understand the properties, preparation, assay and medicinal uses of acids, bases, buffers, extra and intracellular electrolytes and dental products.
		CO3	Identify the principles and methods for preparation, assay, properties and medicinal uses of acidifiers, antacids, cathartics and anti microbials.
		CO4	Categorize an appropriate method for preparation, properties, assay and medicinal uses of expectorants, emetics, haematinics, astringents, poisons and antidotes..
		CO5	Importance of properties, production and applications of radiopharmaceuticals.
BP105T	**Communication skills (Theory)**	CO1	to comprehend the importance, barriers and startegies of listening skills in the process of communication
		CO2	understand and apply the concepts of communicative strategies
		CO3	learn writing as a process, use grammatical, stylistic and mechanical formats for a variety of purposes.
		CO4	demonstrates the ability to effectively deliver formal presentations before a variety of live audiences
		CO5	enables the students to face the interviews confidently

BP106RBT	**Remedial Biology (Theory)**	CO1	Discuss about living organism.
		CO2	Understand the international classification system for living things.
		CO3	Describe the structure of living cells and their significance.
		CO4	Learn the basic aspects of botany and zoology and their relation with pharmaceutical sciences.
BP106RMT	**Remedial Mathematics (Theory)**	CO1	Know the theory, solve the problems and understands the application of mathematical principles of algebra, co-ordinate geometry, differential calculus.
		CO2	Solve the problems of trigonometry, integral calculus, differential equations.
		CO3	Understand Laplace transforms and their use.
		CO4	Relate the mathematical tools to a broad range of situations which arise in the view of pharmacy profession.
BP107P	**Human Anatomy and Physiology (Practical)**	CO1	Recall the various parts and usage of compound microscope.
		CO2	Identify and describe various cells and tissues.
		CO3	Determine various parameters of hemocytometry.
		CO4	Compare and contrast various bones present in skeletal system.
		CO5	Report heartbeat, pulse rate and blood pressure
BP108P	**Pharmaceutical Analysis I (Practical)**	CO1	Apply Good Laboratory Practice and minimize the source of Errors and impurities.
		CO2	Evaluate the percentage purity of unknown sample by applying suitable electro-analytical methods.
		CO3	Estimate the strength of acids and bases by using primary and secondary standards.
		CO4	Interpret the results, calculate and Assess the samples.
		CO5	Determine purity of the substances as per the standards.
BP109P	**Pharmaceutics I (Practical)**	CO1	Prepare various conventional dosage forms.
		CO2	Label the prescribed dosage forms.
		CO3	Differentiate the diffusible and in diffusible suspensions.
		CO4	Identify the differences involved in the preparation of monophasic and biphasic dosage forms.
		CO5	Distinguish the oral and topical powders.
		CO6	Observe the different methods involved in semisolid preparations.
BP110P	**Pharmaceutical Inorganic Chemistry (Practical)**	CO1	Identify specific impurities in the given inorganic compounds by performing different limit tests.
		CO2	compare inorganic compounds and perform tests as per Indian Pharmacopeia
		CO3	Determine the test for purity of Inorganic Compounds as per Indian Pharmacopeia.
		CO4	Explain various methods in preparation of Inorganic Pharmaceuticals
BP111P	**Communication skills (Practical)**	CO1	Illustrate and impart, practice phonemic symbols, stress and intonation
		CO2	Practice oral skills and receive feedback on learners' performance
		CO3	Practice language in various contexts through pair work, role plays, group work and dialogue conversations
		CO4	To enhance conversational skills of English language in the students
BP112RBP	**Remedial Biology (Practical)**	CO1	Handle microscope independently
		CO2	Demonstrate understanding of section cutting techniques, mounting and staining, permanent slide preparation. Identify tissues by microscopic study
		CO3	Explain stem, root, leaf and its modification
		CO4	Determine Blood Group, Blood Pressure and Tidal Volume

BP201T	**Human Anatomy and Physiology II (Theory)**	CO1	Explain the gross morphology, structure and functions of nervous system of the human body.
		CO2	Describe the anatomy of digestive tract and various metabolic reactions related to human body
		CO3	Illustrate the anatomy and physiology of respiratory and urinary systems
		CO4	Demonstrate the various endocrinal homeostatic mechanisms and their imbalances
		CO5	Identify various organs involved in the reproduction with their physiology and to introduce genetical inheritance
BP202T	**Pharmaceutical Organic Chemistry I (Theory)**	CO1	Construct the structure, name and the type of isomerism of the organic compound.
		CO2	Develop Isomerism concept with the use of Organic Chemistry tools
		CO3	Explain different types of Organic reactions and their mechanisms and various reagents used in these reactions.
		CO4	Demonstrate sufficient ability to use effective and oral communication by application of structural aspects of organic chemistry.
		CO5	Utilize standardised names while writing chemical reactions
BP203T	**Biochemistry (Theory)**	CO1	Classify bio molecules and can explain their chemistry and functions.
		CO2	Explain the concept of free energy and classification of energy rich compounds. Biological oxidation
		CO3	Describe the metabolism in bio molecules.
		CO4	Explain the organisation of mammalian genome.DNA replication, transcription and translation process
		CO5	Describe the catalytic role, therapeutic and diagnostic applications of enzymes and co-enzymes and enzyme inhibitors.
BP204T	**Pathophysiology (Theory)**	CO1	Describe the mechanisms of cell injury, adaptations and inflammation
		CO2	Explain the etiopathogenesis of cardiovascular, renal and respiratory diseases.
		CO3	Ilustrate the pathophysiology of haematological and gastrointestinal disorders
		CO4	Discuss the etiopathogenesis and complications of nervous endocrine and gastrointestinal disorders
		CO5	Demonstrate the epidemiology signs and symptoms and etiopathogenesis of cancer, bones, and joints disorders.
		CO6	Pathology of infectious diseases and sexually transmitted diseases.
BP205T	**Computer Applications in Pharmacy (Theory)**	CO1	Explain about the Binary, Decimal, Octal, Hexadecimal number systems, conversion of decimal to binary, binary to decimal, octal to binary etc. Binary addition, subtraction, multiplication, division.
		CO2	Describe the Information gathering, requirement and feasibility analysis, data flow diagrams.
		CO3	Discuss about the HTML,XML,CSS and Programming languages, web servers and Server Products databases.
		CO4	Assess the applications of computers in pharmacy, Drug information center, Drug design, Hospital and Clinical Pharmacy, Lab-diagnostic System, Electronic Prescribing and discharge (EP) systems and automated dispensing of drugs.
		CO5	Express the Objective, Concept and Impact of Bioinformatics.
		CO6	Apply the knowledge of Computers in data analysis, Preclinical development and CDA, LIMS and TIMS.
BP206T	**Environmental sciences (Theory)**	CO1	Describe the multidisciplinary nature of environment.
		CO2	Determine the natural resources and their conservation methods.

		CO3	Discuss the structure and function of different ecosystems .
		CO4	Distinguish the causes and remedies of air pollution, water pollution, and soil pollution.

BP207P	**Human Anatomy and Physiology II (Practical)**	CO1	*Illustrate* special senses, nervous system using specimen, models, etc.
		CO2	Explain working pattern of different organs of each system.
		CO3	Describe the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.
		CO4	Perform the haematological tests like blood cell counts, haemoglobin.
		CO5	Estimation, bleeding/clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume.
BP208P	**Pharmaceutical Organic Chemistry I (Practical)**	CO1	Identify Organic compounds.
		CO2	Report the functional groups present in the given compound
		CO3	Determine Physical properties of organic molecules
		CO4	Prepare organic compounds
		CO5	Record the melting point/ boiling point for unknown compounds identified
		CO6	Observe the solubility of organic compounds
BP209P	**Biochemistry (Practical)**	CO1	Identify biomolecule by qualitative analysis
		CO2	Estimation of various biomolecules quantitatively
		CO3	Analyse qualitatively abnormal constituents of urine
		CO4	Evaluate the factors influencing enzyme activity
		C05	Determine various substances present in blood and blood related compounds
		CO6	Prepare of buffer solutions
BP210P	**Computer Applications in Pharmacy (Practical)**	CO1	Design a questionnaire using a word processing package to gather information about a particular disease
		CO2	Create a HTML web page to show personal information. Exporting Tables, Queries, Forms and Reports to web pages
		CO3	Develop database in MS Access to store the patient information with the required fields.
		CO4	prepare a form in MS Access to view, add, delete and modify the patient record in the database.
		CO5	Produce invoice table using – MS Access.
BP301T	**Pharmaceutical Organic Chemistry II (Theory)**	CO1	Explain the reaction, reagents application and mechanism of reactions.
		CO2	Analyze the stability of compounds.
		CO3	Design synthesis of compounds with simple reagents.
		CO4	Apply various reagents used in reactions to carryout inter conversion of functional groups.
		CO5	Analyze the synthesis of Organic compounds.
BP302T	**Physical Pharmaceutics I (Theory)**	CO1	Explain different types of solubility and their applications, different types of laws in the development of formulations.
		CO2	Describe the pharmaceutical relevance of different states of matter and study of physical, chemical properties in development of new dosage forms.
		CO3	Explain the principles and mechanism of adsorption at different interfaces, partition coefficient, surfactant, calculate HLB values.
		CO4	Understand the concept of Complexation, protein binding and to estimate the stability constant for complex formation.
		CO5	Summarize basic principles of acids and bases, pH, buffer systems and to solve the numerical problems involving the tonicity adjustment of formulations.
BP303T	**Pharmaceutical Microbiology (Theory)**	CO1	Discuss about the scope ,importance of microbiology and classification of bacteria

		CO2	. Generalize the methods of isolation and preservation of micro organisms.
		CO3	Differentiate various sterilization methods to maintain aseptic environment.
		CO4	Write about the sterility testing of pharmaceutical products.
		CO5	Explain the microbiological assay of antibiotics and vitamins.
		CO6	Describe the growth of animal cell culture.
BP304T	**Pharmaceutical Engineering (Theory)**	CO1	Discuss the concept of flow of fluids and understand the flow behaviour in pharmaceutical operation
		CO2	Write the mechanism involved, laws governing the size reduction and size separation process in pharmaceutical industries
		CO3	Explain the mechanism of heat transfer equipment
		CO4	Summarise the factors and equipment related to filteration and mixing unit operation
		CO5	Describe plant constrution and various preventive methods for control of corrosion in pharmaceutical industries.
		CO6	Differentiate the various distilation methods
BP305P	**Pharmaceutical Organic Chemistry II (Practical)**	CO1	Select Recrystallization and Steam distillation techniques to purify compounds.
		CO2	Determine different properties of Oils and fats.
		CO3	Preparation of Organic compounds.
		CO4	Calculate the percentage yields of the products obtained by synthesis
		CO5	Conversion of one compound to another
		CO6	Analysis of fats and oils
BP306P	**Physical Pharmaceutics I (Practical)**	CO1	Develop skills and techniques those are parts of pharmaceutical procedures through the actual use of equipment and instruments. Clarify theoretical concepts learned in physical pharmacy-I
		CO2	To interpret scientific data, represent the data in a tabular and/or graphical form.
		CO3	Calculate critical solution temperature & effect of addition of electrolyte on CST of phenol-water system,
		CO4	Determine pKa, surface tension and effect of temperature on solubility.
		CO5	Determination of stability constants of complexes.
BP307P	**Pharmaceutical Microbiology (Practical)**	CO1	Recognize different equipments and glassware used in experimental microbiology
		CO2	Enumerate the bacteria by using pure culture techniques.
		CO3	Determine the microbiological assay of antibiotics
		CO4	Identify the microorganisms by staining methods.
		CO5	Differentiate the enteric organisms by using biochemical tests.
		CO6	Evaluate the sterility testing of Pharmaceutical products.
BP308P	**Pharmaceutical Engineering (Practical)**	CO1	Determine the humidity of air.
		CO2	Ealuate the factors influencing the rate of filtration.
		CO3	Estimate the moisture content and loss on drying in sample for powder material
		CO4	**Measure the uniformity index related to mixing**
		CO5	Construct the drying rate curve.
		CO6	Analyse the average og particle size.
BP401T	**Pharmaceutical Organic Chemistry III (Theory)**	CO1	Explain the Stereo chemical aspects of organic and stereochemical reactions
		CO2	Identify and nomenculate optical isomers.
		CO3	Distinguish Chiral & Achiral and Cis & Trans compounds.
		CO4	Describe importance of prescribed Chemical reactions in

			synthesis of organic compounds
		CO5	Explain synthetic routes, properties and reactions of enlisted organic compounds.

BP402T	**Medicinal Chemistry I (Theory)**	CO1	Correlate between pharmacology of a disease and its mitigation or cure
		CO2	Prioritize the drugs based on structural activity relationships
		CO3	Evaluate the different mechanism of actions of drugs.
		CO4	Establish the relationship of drugs with respect to physiology
		CO5	Interpret and plan synthetic procedures for the preparation of drugs.
BP403T	**Physical Pharmaceutics II (Theory)**	CO1	Explain the rheological properties of liquid and semisolid dosage forms
		CO2	Describe the chemical stability tests of various drug products
		CO3	Write about the colloids, emulsions and suspensions.
		CO4	Discuss the interfacial properties and particle determination methods
		CO5	Summerise the physiochemical properties of drugs including adsorption and stability
		CO6	Illustrate the deformation of solids for compression
BP404T	**Pharmacology I (Theory)**	CO1	To define the fundamental concepts of pharmacology and pharmacokinetics.
		CO2	To understand the basics of pharmacodynamics, adverse reactions, drug interactions and drug discovery
		CO3	To Identify the Organization and function of ANS, role of various neurotransmitters and pharmacology of drugs modulating the ANS
		CO4	To analyze the functions of neurotransmitters and drugs acting on central nervous system.
		CO5	To appraise the pharmacology of psychopharmacology agents
		CO6	To predict the effects of drugs against neurodegenerative disorders and to elaborate the concepts of drug addiction/abuse/tolerance/ dependence
BP405T	**Pharmacognosy and Phytochemistry I (Theory)**	CO1	Describe the history and development of Pharmacognosy, sources of drugs and classification of drugs, evaluation of drugs from natural origin.
		CO2	Explain the various techniques involved in the cultivation, post harvesting of natural origin drugs.
		CO3	Establish different types of plant tissue cultures techniques.
		CO4	Summarize the role of pharmacognosy in allopathy and traditional medicinal systems and production of therapeutically active secondary metabolities.
		CO5	Focus on the systematic pharmacognostic study of crude drugs.
BP406P	**Medicinal Chemistry I (Practical)**	CO1	Organize the innovative methods for synthesis of medicinal compounds.
		CO2	Speculate the various reaction mechanisms
		CO3	Correlate the different methods of assay of drugs
		CO4	Paraphrase the partition coefficient of drugs with respect to biological activity.
		CO5	Analysis of purity of drugs
BP407P	**Physical Pharmaceutics II (Practical)**	CO1	Observe the derived properties of poders.
		CO2	Determine the first and second order reaction rate constant.
		CO3	Estimate the accelerated stability studies.
		CO4	contruct the size distribution curves.
		CO5	Measure the particle size by various methods.
		CO6	Report the sedimentation volume of suspensions
BP408P	**Pharmacology I (Practical)**	CO1	Describe various instruments and animals used in experimental pharmacology.

		CO2	Observe various laboratory techniques like routes of administration blood withdrawal and serum, plasma separation.
		CO3	Determine effect of various drugs on neurological behaviour of animals.
		CO4	Experiment on various simulated models.
		CO5	Appreciate correlation of pharmacology with other biological sciences.
BP409P	**Pharmacognosy and Phytochemistry I (Practical)**	CO1	Analyze the crude drugs by performing qualitative chemical tests.
		CO2	Examine the organoleptic profile of crude drugs.
		CO3	Determine the microscopic characters (Leaf constants, cellular characters, cell constituents and quantitative microscopy)of crude drugs.
		CO4	Evaluate the physical characters (ash values, extractive values, moisture content, swelling index and foaming) of crude drugs.
BP501T	**Medicinal Chemistry II (Theory)**	CO1	Classify drugs based on their mechanism as well as moiety
		CO2	Explain the structural features of a molecule
		CO3	Establish SAR for various moieties which predominantly describe structure-activity correlation.
		CO4	Explain various kinds of drug action.(drug effect or action - on different targets.(ex., protein, enzyme, receptor etc.,)
		CO5	Illustrate different synthetic approaches and strategies necessary for synthesis of medicinal compounds
BP502T	**Industrial PharmacyI (Theory)**	CO1	Write about pre formulation parameters.
		CO2	Discuss about formulation and method of preparation of various dosage forms.
		CO3	Explain the quality control tests for various dosage forms.
		CO4	Summarize the concepts of various cosmetic preparations.
		CO5	Review various formulation adjuvants in aerosol preparations.
		CO6	Describe various packaging materials for pharmaceutical products
BP503T	**Pharmacology II (Theory)**	CO1	Discuss the basic scientific concepts and principles that serve as the foundational underpinnings of the pharmacological sciences including pharmacokinetics, pharmaco dynamics, drug metabolism and drug-drug interactions of drugs.
		CO2	Correlate the bio molecular mechanisms behind the pathological conditions of heart, urinary and endocrine diseases.
		CO3	Represent about the pharmacology of blood related drugs.
		CO4	Generalize the role of autocoids in the inflammatory process.
		CO5	Explain the pharmacology of anti-inflammatory drugs.
		CO6	Appraise he techniques, requirements and protocols involved in the bioassay of various drugs.
BP504T	**Pharmacognosy and Phytochemistry II (Theory)**	CO1	Illustrate the basic metabolic pathways and investigate the bio synthetic studies in higher plants.
		CO2	Explain the pharmacognostic study of various secondary metabolites.
		CO3	Discuss about the isolation, identification, estimation and utilization of phytoconstituents.
		CO4	Prepare and standrdize various herbal formulations
		CO5	Describe the modern extraction techniques, isolation, characterization of the herbal drugs.
BP506P	**Industrial PharmacyI (Practical)**	CO1	Prepare different dosage forms.
		CO2	Select suitable packaging containers for a dosage form.
		CO3	Operate different equipments used in preparation of dosage forms.
		CO4	Determine the physicochemical properties of drugs to dosage forms.
		CO5	Evaluate different dosage forms as per official pharmacopoeia.

BP507P	**Pharmacology II (Practical)**	CO1	Simulate the bioassays of various drugs on organs/tissues.
		CO2	Assess the effect of various drugs on the various receptors by using isolated tissue preparation.
		CO3	Measure the doses required to produce the therapeutic values on various isolated tissues.
		CO4	Determine the PA2 & PD2 values of drug by using isolated tissue.
		CO5	Experiment with test and standard drugs for anti-inflammatory and analgesic activity.
		CO6	Prepare the DRC of acetylcholine using frog rectus abdominis muscle.
BP508P	**Pharmacognosy and Phytochemistry II (Practical)**	CO1	Examine the pharmacognostic study of crude drugs..
		CO2	Develop methods involved in extraction ,isolation ,detection of phyto constituents.
		CO3	Apply the chromatographic techniques for herbal extracts.
		CO4	Estimate the volatile oil content of the crude drugs.
		CO5	.Analyse the crude drugs by performing qualitative chemical tests.
BP601T	**Medicinal Chemistry III (Theory)**	CO1	Write classification, chemistry, degradation, SAR, MOA of Beta lactam antibiotics; Amino glycosides; Tetracyclines.
		CO2	Explain MOA, chemistry, SAR, synthesis of Macrolide antibiotics; Antimalarials. Concept of pro drug design.
		CO3	Describe synthesis, classification, MOA, SAR of Anti TB agents; UT anti infective agents; Anti viral agents.
		CO4	Discuss SAR, classification, MOA, synthesis of Anti fungal agent; Anti protozoal agents; Anthelminthics; Sulphonamides.
		CO5	Summarize importance and different techniques in drug design; Concept of QSAR and Combinatorial Chemistry.
BP602T	**Pharmacology III (Theory)**	CO1	Describe the pharmacology of drugs for the various respiratory, GIT disorders
		CO2	Explain principles of chemotherapy, mechanism, interactions, adverse drug reactions and uses of various antibiotics.
		CO3	Teach the chemotherapy of various fungal, viral, helmenthic infections
		CO4	Discuss the chemotherapy of microbial, protozoal, UTI, STD, cancer and teach the pharmacology of immune related drugs, protein drugs monoclonal antibodies, target drugs to antigen biosimilars in the therapeutics.
		CO5	Summarize the principles of toxicology, the mechanisms by which excess exposure to certain drugs, toxins, chemicals, heavy metals and poisons can lead to adverse toxicological effects and the clinical management of poisoned patient.
		CO6	Describe biological clock and its role in the administration of drugs.
BP603T	**Herbal Drug Technology (Theory)**	CO1	Explain in detail selection, authentication and processing of herbal raw material.
		CO2	Discuss about the basic principles involved in Indian systems of medicines along with Ayurvedic formulations.
		CO3	Write about the nutraceuticals in prevention of diseases along categorise herb drug interactions.
		CO4	Describe the raw materials used in herbal cosmetics and herbal formulations.
		CO5	Apply the WHO & ICH guidelines for the assessment of stability testing of herbal drugs.
		CO6	Appraise, regulatory requirements and GMP for herbal drugs in herbal drug industry.
BP604T	**Biopharmaceutics and**	CO1	Describe the basic concepts in bio pharmaceutics &

	Pharmacokinetics (Theory)		pharmacokinetics and their significance in formulation development.
		CO2	Discuss various factors affecting absorption, distribution &protein binding of drug with examples
		CO3	Design the protocol for bioavailability and bioequivalence studies.
		CO4	Explain the basic principles involved in compartment modelling.
		CO5	Calculate various pharmacokinetic parameters involved in compartmental analysis.
		CO6	Write about various factors causing nonlinearity in pharmacokinetics and method of estimation of nonlinear pharmacokinetic parameters.
BP605T	**Pharmaceutical Biotechnology (Theory)**	CO1	Write about the basic concepts of biotechnology with respect to enzyme immobilization, biosensors, protein engineering & genetic engineering.
		CO2	Discuss about the techniques for production of growth hormones, vaccines, blood products, monoclonal antibodies, PCR.
		CO3	Illustrate the major immune components and their functions .
		CO4	Explain the role of immuno blotting techniques .
		CO5	Summarize the concepts of microbial genetics ,mutations ,microbial transformation of steroids.
		CO6	Describe the general requirements for fermentation process.
BP606T	**Quality Assurance (Theory)**	CO1	Summarize the concept of QMC, GMP, TQM, ICH, QbD, ISO, NABL in all areas that impact drug quality.
		CO2	Describe the process of selection of personnel, location, equipment and raw material in pharmaceutical industry.
		CO3	Describe the quality control tests for packaging materials.
		CO4	Review the concept of QC and GLP
		CO5	Apply in depth knowledge and experience of techniques for handling of return goods, complaints and also in preparation of quality documents and quality review.
		CO6	To understand and implement various validation guidelines, good ware housing practices and material management.

BP607P	**Medicinal chemistry III (Practical)**	CO1	Prepare drugs and their intermediates
		CO2	Estimate drugs from their dosage forms
		CO3	Determine different physic-chemical properties of a molecule by means of suitable softwares
		CO4	Develop molecular structures and chemical reactions using suitable softwares
		CO5	Correlate physic-chemical properties biological activity of different drug molecules
BP608P	**Pharmacology III (Practical)**	CO1	Write the dose calculations of drugs for animal experimentation.
		CO2	Test the dose of various drugs like catecholamines, cholinergic, anti histamine, anti ulcer.
		CO3	Estimate the various biological parameters by using analyser.
		CO4	Assess the toxicity and safety of drugs as per the OECD guidelines.
		CO5	Calculate the various pharmacokinetic parameters by using examples.
		CO6	Justify the significance of biostatistics used in the

			pharmacology.
BP609P	**Herbal Drug Technology (Practical)**	CO1	Perform the preliminary phyto chemical screening of crude drugs..
		CO2	Determine the alcohol content of Ayurvedic formulations.
		CO3	Evaluate the excipients of. Natural origin.
		CO4	Prepare and standardise herbal conventional and cosmetic formulations
		CO5	Determine aldehyde, phenol and alkaloid content of crude drugs.
BP701T	**Instrumental Methods of Analysis (Theory)**	CO1	Describe basic concept, instrumentation, applications of UV-visible spectroscopy; Flourimetry.
		CO2	Write theory, instrumentation, applications of IR spectroscopy; Flame photometry; AAS; Nepheloturbidometry.
		CO3	Explain methodology, applications and chromatographic techniques; Electrophoresis.
		CO4	Illustrate principle, instrumentation, derivatization techniques, applications of GC; HPLC.
		CO5	Discuss experimental set up, applications of Ion exchange chromatography; Gel chromatography; Affinity chromatography.
BP702T	**Industrial Pharmacy II (Theory)**	CO1	Discuss pilot plant scale up considerations for different dosage forms.
		CO2	Explain the process of technology transfer and utilizing these principles in commercialization and different technology transfer agencies in india.
		CO3	Recall the importance of drug regulatory affairs.
		CO4	Employ the regulatory knowledge in clinical research, IND, NDA and data presentation for FDA submissions.
		CO5	Explain about QMS, TQM, QbD, ISO, six sigma, NABL and other Indian regulatory requirements.
		CO6	Critically examine and evaluate scientific data and conclusions intended for CDSCO regulatory review.
BP703T	**Pharmacy Practice (Theory)**	CO1	Write the basic components in organization of hospital and hospital pharmacy
		CO2	Discuss in detail about adverse drug reactions and drug interactions
		CO3	Summarize various drug distribution systems and concept of inventory control followed in hospital
		CO4	Generalize about organization and functions of pharmacy and therapeutic committe
		CO5	Recognize the communication skills in prescription interpretations and patient counselling.
		CO6	Differentiate the responsibilities of community pharmacist and clinical pharmacist.
BP704T	**Novel Drug Delivery System (Theory)**	CO1	Explain the criteria for selection of drugs & polymers in formulation of Controlled Release DDS.
		CO2	Apply the various approaches for development of microcapsules, mucosal DDS & implantable DDS.
		CO3	Develop the various NDDS like Transdermal, Gastroretentive & Nasopulmonary DDS.
		CO4	Describe the various Targeted DDS like Liposomes, Niosomes, Nanoparticles & Monoclonal antibodies.
		CO5	Discuss the formulation of Ocular DDS & Intra-uterine DDS.
BP705P	**Instrumental Methods of Analysis (Practical)**	CO1	Interpret UV-Visible spectrum to determine absorption maxima.
		CO2	Estimate drugs using UV-Spectroscopy, colorimetry and fluorimetry.
		CO3	Identify elements using flame photometry.
		CO4	Determine chlorides and sulphates using nephelo turbidimetr.
		CO5	Analyse mixture of components by different chromatographic techniques.
		CO6	Explain different modules and operation of HPLC

BP706PS	**Practice School**	CO1	Identify their field of interest in terms of job /research/higher studies.
		CO2	Prepare power point presentations on relevant topics
		CO3	Prepare the technical concepts learnt theoretically in the class rooms to meet the requirements of industry.
		CO4	Apply concepts learnt in the modules with research work .
		CO5	Establish the basic tenets of ethical behaviour and professional conduct
		CO6	Develop their communication skills
BP801T	**Biostatistics and Research Methodology**	CO1	Describe Introduction of Statistics, Biostatistics, Frequency distribution. apply Mean, Median, mode- Pharmaceutical examples. Dispersion, Range, standard deviation.
		CO2	Apply Curve fitting by the method of least squares, Multiple regression, standard error of regression with Pharmaceutical Examples.
		CO3	Estimate Wilcoxon Rank Sum Test, Mann-Whitney U test, Kruskal-Wallis test, Friedman Test.
		CO4	Explain Blocking and confounding system for Two-level factorials.
		CO5	Analyze the experiments related to Factorial Design, 2^2, 2^3design.
BP802T	**Social and Preventive Pharmacy**	CO1	Discuss the concept the public health and diseases in Indian and International Scenario.
		CO2	Describe the control measures for various preventable diseases.
		CO3	Explain the objectives, functioning and outcome of various National Health Programmes.
		CO4	Debate on current issues related to pharmacy and health.
		CO5	Generalize the role of pharmacists in health education and promotion.
		CO6	Speculate the alternatives for solving pharmaceutical and public health issues.
BP803ET	**Pharma Marketing Management**	CO1	Explain different concepts of marketing.
		CO2	Identify marketing mix for pharmaceutical products.
		CO3	Classify different types of sales promotion.
		CO4	Examine pharmaceutical marketing channels.
		CO5	Compare pricing of pharmaceutical products.
		CO6	Adapt to emerging concepts of marketing.
BP804ET	**Pharmaceutical Regulatory Science**	CO1	Know about the process of drug discovery and development.
		CO2	Know the regulatory process governing the manufacture and sale of pharmaceuticals.
		CO3	Know the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals.
		CO4	Procedure for the registration of Indian drug product in overseas market.
		CO5	Process of conduct of various phases of clinical trails
		CO6	Regulatory concepts to be followed for the approval of new drugs.
BP805ET	**Pharmacovigilance**	CO1	Summarize the history and development of Pharmacovigilance at national and international level.
		CO2	Memorize the list of drugs, medical terms, ADE & regulatory terminologies for coding in PV.
		CO3	Write ATC & International classification of diseases and Non-proprietary names of drugs.
		CO4	Describe the establishment of Pharmacovigilance program in hospitals, clinical research organizations, and industry at national level.
		CO5	Practice communication in pharmacovigilance, drug safety crisis management and with regulatory agencies, business partners, health care facilities and media.
		CO6	Assess the drug safety in special population
		CO7	Explain the CIOMS WG's, objectives of ICH along with

			organization and role in pharmacovigilance process, GCP in PV studies.
BP806ET	**Quality Control and Standardization of Herbals**	CO1	Apply the knowledge of WHO, EU and ICH guidelines for quality control of herbal drugs
		CO2	Assess the quality assurance in herbal drug industry of cGMP, GAP, GMP and GLP in traditional system of medicine.
		CO3	Describe the regulatory approval process and their registrations in India and International markets.
		CO4	Determine the stability testing of herbal medicines by the application of various chromatography techniques.
		CO5	Prepare the documents for new drug application and export registration.
BP807ET	**Computer Aided Drug Design**	CO1	Understand how current drugs were developed by using pharmacophores modeling and docking technique.
		CO2	Evaluation of drug discovery process from various techniques.
		CO3	Utilize various molecular modelling softwares in the design of novel drug-like molecules.
		CO4	Apply the various softwares for physico-chemical property prediction.
		CO5	Establishment of different visualisation tools for drug design.
BP808ET	**Cell and Molecular Biology**	CO1	Summarize cell and molecular biology history and the DNA properties of cell biology.
		CO2	Summarize cellular functioning and composition
		CO3	Describe the chemical foundations of cell biology.
		CO4	Discuss about protein structure and function
		CO5	Explain the cellular membrane structure and function
		CO6	Identify the basic molecular genetic mechanisms. Summarize the Cell Cycle
BP809ET	**Cosmetic Science**	CO1	Discuss about cosmetics & its excipients; Structure of Skin, Hair & Oral cavity.
		CO2	Formulate various skin care & hair care products.
		CO3	Explain the preparation & evaluation of cosmetics.
		CO4	Evaluate the cosmetics preparations.
		CO5	Describe the mechanism of action, uses & problems associated with cosmetic preparations.
BP810ET	**Experimental Pharmacology**	CO1	Discuss about various laboratory animals, guidelines, dosing and blood collection techniques.
		CO2	Select appropriate animal model for diseases.
		CO3	Design animal pharmacology and toxicology studies.
		CO4	Consider appropriate regulatory guidelines for compliance.
		CO5	Interpret animal pharmacology and toxicology study data.
		CO6	Appraise the importance of animal studies.
BP811ET	**Advanced Instrumentation Techniques**	CO1	Apply principles of NMR and mass spectroscopy techniques for structural elucidation of drug molecules
		CO2	Interpret data obtained from different thermo analytical techniques
		CO3	Apply theoretical knowledge of hyphenated techniques for identification of trace impurities, degradation products and drug metabolites
		CO4	Apply different X-ray diffraction methods for determination of structure of crystals and characterisation of polymers.
		CO5	Plan calibration of different analytical instruments
BP812ET	**Dietary Supplements and Nutraceuticals**	CO1	Appraise the need of supplements by the different group of people to maintain healthy life.
		CO2	Discriminate about the health problems and diseases caused due to deficiencies in dietary supplements
		CO3	Describe the Occurrence and characteristic features (chemical nature and medicinal benefits) of Phytochemicals as nutraceuticals
		CO4	Express about free radicals, reactive oxygen species, production of free radicals in cells, damaging reactions of free radicals on lipids, proteins, Carbohydrates, nucleic acids.

		CO5	Explain the regulatory and commercial aspects of dietary supplements including health claims
BP813PW	Project Work	CO1	Develop a research protocol
		CO2	Review current Knowledge developments in the chosen technical area
		CO3	Collaborate as a team to undertake detailed technical work for the project .
		CO4	Analyze the data obtained using appropriate tools
		CO5	Prepare a thesis describing the work undertaken,results obtained and specific contributions to the research area
		CO6	Defend their research work individually or as team to a panel of experts.

PRINCIPAL

B.Pharmacy Course Subjects (PCI Regulation)

Correlation between Course Outcomes and Programme Outcomes

Course Code/ Course Name	Courseoutcomes	PROGRAM OUTCOMES										
		1	2	3	4	5	6	7	8	9	10	11
I /IV B.PHARMACY YEAR 1ST SEMESTER												
BP101T Human Anatomy and Physiology I (Theory)	CO1	1	-	2	-	-	2	2	-	-	2	2
	CO2	2	-	3	-	-	3	2	-	3	2	2
	CO3	2	-	3	-	-	3	2	-	3	2	2
	CO4	2	-	3	-	-	3	2	-	2	2	2
	CO5	2	-	3	-	-	3	2	-	3	2	2
	Average course outcomes = 2.0 (max 3.00)	**1.8**	**-**	**-**	**-**	**-**	**2.3**	**2**	**-**	**2.7**	**2**	**2**
BP102T Pharmaceutical Analysis I (Theory)	CO1	2	1	2	2	2	1	2	2	2	1	1
	CO2	2	1	2	2	2	1	1	-	2	1	1
	CO3	2	2	2	1	3	1	2	2	3	2	2
	CO4	2	1	2	1	1	1	1	-	2	1	1
	CO5	2	-	2	2	1	1	2	-	2	1	2
	Average course outcomes = 1.6 (max 3.00)	**2**	**1.2**	**2**	**1.6**	**1.8**	**1**	**1.6**	**2**	**2.2**	**1.2**	**1.4**

BP103T Pharmaceutics I (Theory)	CO1	2	-	-	-	-	3	3	-	1	-	2
	CO2	2	-	-	-	-	2	2	-	2	-	3
	CO3	3	-	-	-	2	3	3	2	3	2	3
	CO4	3	2	2	2	2	2	2	2	2	-	3
	CO5	2	-	2	-	-	2	2	-	3	2	3
	CO6	2	-	-	-	-	2	1	-	2	-	3
	Average course outcomes = 2.16 (max 3.00)	**2.33**	**2**	**2**	**2**	**2**	**2.33**	**2.16**	**2**	**2.16**	**2**	**2.83**
BP104T Pharmaceutical Inorganic Chemistry (Theory)	CO1	3	-	3	2	-	2	-	-	-	3	3
	CO2	3	-	3	-	-	2	-	-	2	2	2
	CO3	3	2	2	-	-	2	-	-	2	2	2
	CO4	3	2	2	-	-	2	-	-	2	2	2
	CO5	3	-	2	-	-	2	-	-	2	2	2
	CO6	3	-	3	3	-	2	-	-	2	2	2
	Average course outcomes = 2.3 (max 3.00)	**3**	**2**	**2.5**	**2.5**	**-**	**2**	**-**	**-**	**2**	**2.2**	**2.2**
BP105T Communication skills (Theory)	CO1	-	1	1	-	1	-	-	3	-	-	2
	CO2	-	2	1	-	1	-	-	3	-	-	2
	CO3	-	1	1	-	1	-	-	3	-	-	2
	CO4	-	1	2	-	3	-	-	3	-	-	2
	CO5	-	1	1	-	1	-	-	3	-	-	2
	Average course outcomes = 1.8 (max 3.00)	**-**	**1.5**	**1.5**	**-**	**1.2**	**-**	**-**	**3**	**-**	**-**	**2**
BP106RBT Remedial Biology (Theory)	CO1	3	-	-	2	2	2	1	-	1	1	2
	CO2	3	-	-	2	1	1	1	-	1	1	2
	CO3	2	-	-	1	1	1	1	-	1	1	2
	CO4	3	-	-	2	1	2	1	-	2	1	2
	Average course outcomes = 1.4 (max 3.00)	**2.7**	**-**	**-**	**1.7**	**1.2**	**1.5**	**1**	**-**	**1.2**	**1**	**1**
BP106RMT Remedial Mathematics (Theory)	CO1	1	3	3	-	-	1	-	-	-	-	3
	CO2	-	-	-	-	-	-	-	-	-	-	-
	CO3	1	3	3	-	-	1	-	-	-	-	3
	CO4	1	3	3	-	-	1	-	-	-	-	3
	CO5	1	3	3	-	-	1	-	-	-	-	3
	Average course outcomes = 2.2 (max 3.00)	**1**	**3**	**3**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**3**
BP107P Human Anatomy and Physiology (Practical)	CO1	2	-	-	2	-	2	2	-	3	1	1
	CO2	2	-	-	2	-	2	2	-	3	1	1
	CO3	2	-	-	2	-	2	2	-	3	1	1
	CO4	2	-	-	2	-	2	2	-	3	1	1
	CO5	2	-	-	2	-	2	2	-	3	1	1
	Average course outcomes = 2.5 (max 3.00)	2	**-**	**-**	2	**-**	**2**	**2**	**-**	**3**	**1**	**1**

BP108P Pharmaceutical Analysis I (Practical)	CO1	2	2	2	2	1	2	2	2	2	2	1
	CO2	2	2	2	2	1	1	1	2	2	1	1
	CO3	2	2	2	2	1	1	1	2	2	1	1
	CO4	2	2	2	1	-	2	2	1	2	-	-
	CO5	2	2	2	2	1	2	2	2	2	1	-
	Average course outcomes = 1.6 (max 3.00)	**2**	**2**	**2**	**1.8**	**1**	**1.6**	**1.6**	**1.8**	**2**	**1.2**	**1**
BP109P Pharmaceutics I (Practical)	CO1	2	2	2	2	2	2	2	2	2	2	3
	CO2	2	1	-	-	2	3	3	2	2	2	3
	CO3	2	-	2	-	-	2	1	-	2	-	3
	CO4	2	-	-	-	-	2	2	-	2	-	3
	CO5	2	-	-	-	-	2	1	-	2	-	3
	CO6	2	-	-	-	-	2	2	-	2	-	3
	Average course outcomes = 2.04(max3.00)	**2**	**1.5**	**2**	**2**	**2**	**2.16**	**1.83**	**2**	**2**	**2**	**3**
BP110P Pharmaceutical Inorganic Chemistry (Practical)	CO1	3	2	2	1	-	-	-	-	1	-	2
	CO2	3	2	3	1	-	-	-	-	2	-	2
	CO3	3	2	2	1	-	-	-	-	2	-	2
	CO4	3	2	1	1	-	-	-	-	2	-	2
	Average course outcomes = 2.0 (max 3.00)	**3**	**2**	**2**	**1**	**-**	**-**	**-**	**-**	**1.7**	**-**	**2**
BP111P Communication	CO1	-	1	1	-	2	-	-	3	-	-	2
	CO2	-	1	1	-	3	-	-	3	-	-	2

skills (Practical)	CO3	-	1	1	-	3	-	-	3	-	-	2
	CO4	-	1	1	-	3	-	-	3	-	-	2
	Average course outcomes = 1.9 (max 3.00)	-	**1**	**1**		**2.7**	**-**	**-**	**3**	**-**	**-**	**2**
BP112RBP Remedial Biology (Practical)	CO1	3	2	2	3	1	2	2	2	-	2	3
	CO2	3	2	1	3	-	1	2	2	-	1	2
	CO3	3	1	1	2	-	-	1	2	-	1	2
	CO4	3	1	2	2	2	2	2	2	2	2	3
	Average course outcomes = 1.9 (max 3.00)	3	**1.5**	**1.5**	**2.5**	**1.5**	**1.6**	**1.7**	**2**	**2**	**1.5**	**2.5**
BP201T Human Anatomy and Physiology II (Theory)	CO1	2	2	1	3	-	2	-	-	2	1	3
	CO2	3	2	2	3	2	2	1	-	2	-	3
	CO3	2	1	3	1	-	2	-	-	2	-	3
	CO4	3	2	3	3	-	2	-	-	2	-	2
	CO5	2	2	2	2	-	2	-	-	2	-	2
	Average course outcomes = 2.2 (max 3.00)	**2.4**	**1.8**	**2.2**	**2.4**	**2**	**2**	**1**	**-**	**2**	**1**	**2.6**
BP202T Pharmaceutical Organic Chemistry I (Theory)	CO1	3	3	3	3	2	3	2	2	2	-	3
	CO2	3	2	3	3	2	3	2	2	-	2	3
	CO3	3	2	3	3	2	3	-	3	-	3	3
	CO4	3	3	3	3	2	3	2	2	2	2	3
	CO5	3	2	2	3	2	3	2	2	2	2	3
	Average course outcomes = 2.5 (max 3.00)	**3**	**2.4**	**2.8**	**3**	**2**	**3**	**2**	**2.2**	**2**	**2.2**	**3**
BP203T Biochemistry (Theory)	CO1	3	1	1	3	1	1	-	1	1	1	3
	CO2	3	1	1	3	2	2	-	2	2	3	3
	CO3	3	2	3	2	2	2	1	2	3	2	3
	CO4	3	3	3	3	3	2	-	2	2	3	3
	CO5	3	1	1	2	1	2	-	2	2	1	3
	Average course outcomes = 2.0 (max 3.00)	**3**	**1.6**	**1.8**	**2.6**	**1.8**	**1.8**	**1**	**1.8**	**2**	**2**	**3**
BP204T Pathophysiology (Theory)	CO1	3	-	2	2	-	2	-	1	2	-	2
	CO2	3	-	2	2	-	2	-	1	2	-	2
	CO3	3	1	2	2	1	2	1	1	2	-	2
	CO4	3	-	-	2	-	2	-	1	2	-	2
	CO5	3	1	2	2	-	2	-	1	2	1	2
	CO6	3	-	-	2	-	2	-	1	2	1	2
	Average course outcomes = 1.3 (max 3.00)	**3**	**1**	**2**	**2**	**1**	**2**	**1**	**1**	**2**	**1**	**2**
BP205T Computer Applications in Pharmacy (Theory)	CO1	-	-	3	3	-	-	-	-	-	-	1
	CO2	3	1	3	3	-	-	-	-	2	-	1
	CO3	3	1	3	3	-	-	-	-	2	-	1
	CO4	3	1	3	3	-	-	-	-	2	-	1
	CO5	3	1	3	3	-	-	-	-	2	-	1
	Average course outcomes = 2.2 (max 3.00)	**3**	**1**	**3**	**3**	**-**	**-**	**-**	**-**	**2**	**-**	**1**

BP206T Environmental sciences (Theory)	CO1	2	2	-	-	2	2	2	2	2	3	3
	CO2	-	-	-	2	2	-	-	2	2	3	3
	CO3	-	-	-	-	-	-	-	-	2	3	3
	CO4	2	2	2	3	-	2	2	2	2	3	3
	Average course outcomes = 2.22(max3.00)	**2**	**2**	**2**	**2.5**	**2**	**2**	**2**	**2**	**2**	**3**	**3**
BP207P Human Anatomy and Physiology II (Practical)	CO1	3	2	2	2	2	2	1	2	1	-	2
	CO2	3	2	1	1	1	1	1	2	2	-	2
	CO3	2	2	1	1	2	1	1	2	2	-	2
	CO4	3	2	2	2	2	3	1	2	2	-	3
	Average course outcomes = 1.8 (max 3.00)	**2.7**	**2**	**1.5**	**1.5**	**1.7**	**1.7**	**1**	**2**	**1.7**	**-**	**2.2**
BP208P Pharmaceutical Organic Chemistry I (Practical)	CO1	3	2	2	2	1	2	2	2	2	2	3
	CO2	3	2	2	2	1	2	2	2	2	2	3
	CO3	3	2	2	2	1	2	2	2	2	2	3
	CO4	3	2	2	2	1	2	2	2	2	2	3
	CO5	3	2	2	2	1	2	2	2	2	2	3
	Average course outcomes = 2.0 (max 3.00)	**3**	**2**	**2**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**3**
BP209P Biochemistry	CO1	3	2	2	1	-	-	-	-	1	-	2
	CO2	3	2	3	1	-	-	-	-	2	-	2

(Practical)	CO3	3	2	2	1	-	-	-	-	2	-	2
	CO4	3	2	1	1	-	-	-	-	2	-	2
	CO5	3	2	1	1	-	-	-	-	2	-	2
	CO6	3	2	1	1	-	-	-	-	2	-	2
	Average course outcomes = 1.9 (max 3.00)	**3**	**2**	**2**	**1**	**-**	**-**	**-**	**-**	**1.7**	**-**	**2**
BP210P Computer Applications in Pharmacy (Practical)	CO1	3	3	-	1	1	2	1	2	3	-	3
	CO2	3	3	-	2	1	1	-	2	3	-	1
	CO3	3	3	2	3	3	2	2	3	3	-	2
	CO4	3	3	1	1	2	2	2	2	2	-	3
	CO5	3	2	-	-	-	2	-	-	2	-	-
	Average course outcomes = 1.9 (max 3.00)	**3**	**2.8**	**1.5**	**1.7**	**1.7**	**1.8**	**1.6**	**2.2**	**2.6**	**-**	**2.2**
BP301T Pharmaceutical Organic Chemistry II (Theory)	CO1	3	2	2	3	3	2	-	3	2	2	3
	CO2	3	3	3	3	2	2	-	2	-	2	3
	CO3	3	3	3	3	3	2	2	2	2	3	3
	CO4	3	3	3	3	3	2	2	2	-	3	3
	CO5	3	3	3	3	3	2	2	2	2	3	3
	Average course outcomes = 2.4 (max 3.00)	**3**	**2.8**	**2.8**	**3**	**2.8**	**2**	**2**	**2.2**	**2**	**2.6**	**3**
BP302T Physical Pharmaceutics I (Theory)	CO1	2	-	3	2	1	1	1	-	1	1	1
	CO2	2	-	3	2	1	-	1	1	1	1	1
	CO3	2	-	2	-	1	1	1	2	1	1	1
	CO4	2	-	-	-	1	1	1	1	1	1	1
	CO5	2	1	2	-	1	-	1	1	1	1	1
	CO6	2	1	2	1	1	1	1	1	-	1	1
	Average course outcomes = 1.3 (max 3.00)	**2**	**1**	**2.4**	**1.6**	**1**	**1**	**1**	**1.2**	**1**	**1**	**1**
BP303T Pharmaceutical Microbiology (Theory)	CO1	2	-	-	-	2	2	-	2	-	-	2
	CO2	2	2	3	-	2	3	-	2	3	-	2
	CO3	2	3	3	2	2	3	2	2	-	3	3
	CO4	2	3	3	2	2	3	2	2	2	2	3
	CO5	2	3	3	2	2	3	2	3	2	2	3
	CO6	2	2	2	2	2	2	-	2	-	2	3
	Average course outcomes = 2.3 (max 3.00)	**2**	**2.6**	**2.8**	**2**	**2**	**2.6**	**2**	**2.16**	**2.3**	**2.25**	**2.66**
BP304T Pharmaceutical Engineering (Theory)	CO1	3	2	-	1	1	3	-	2	-	-	3
	CO2	2	-	-	-	2	-	-	2	-	2	3
	CO3	2	-	-	-	2	1	-	2	-	-	3
	CO4	2	2	1	-	-	-	-	1	2	1	2
	CO5	2	2	2	-	-	3	3	1	2	2	2
	CO6	2	2	2	-	-	3	-	2	-	-	2
	Average course outcomes = 1.96 (max 3.00)	**2.16**	**2**	**1.6**	**1**	**1.6**	**2.5**	**3**	**1.66**	**2**	**1.6**	**2.5**
BP305P Pharmaceutical Organic Chemistry II (Practical)	CO1	3	2	2	2	1	2	2	2	2	2	3
	CO2	3	2	2	2	1	2	2	2	2	2	3
	CO3	3	2	2	2	1	2	2	2	2	2	3
	CO4	3	2	2	2	1	2	2	2	2	2	3
	CO5	3	2	2	2	1	2	2	2	2	2	3
	Average course outcomes = 2.1 (max 3.00)	**3**	**2**	**2**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**3**
BP306P Physical Pharmaceutics I (Practical)	CO1	3	2	2	1	-	-	-	-	2	3	3
	CO2	3	2	2	1	-	-	-	-	2	2	3
	CO3	3	2	2	1	-	-	-	-	2	2	3
	CO4	3	2	2	1	-	-	-	-	2	2	3
	CO5	3	2	2	1	-	-	-	-	2	2	3
	Average course outcomes = 2.2 (max 3.00)	**3**	**2**	**2**	**1**	**-**	**-**	**-**	**-**	**2**	**2.2**	**3**
BP307P Pharmaceutical Microbiology (Practical)	CO1	3	3	-	-	2	-	-	2	-	-	2
	CO2	3	3	3	2	2	2	-	2	2	2	3
	CO3	3	3	3	2	2	-	2	2	-	2	3
	CO4	3	3	3	-	2	-	2	2	-	2	3
	CO5	3	3	-	-	2	2	-	2	2	-	3
	CO6	3	3	3	2	2	2	2	2	2	2	3
	Average course outcomes = 2.5 (max 3.00)	**3**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2.83**
BP308P	CO1	2	2	-	-	-	1	2	1	2	2	3

Pharmaceutical Engineering (Practical)	CO2	2	2	-	1	1	2	2	2	2	-	2
	CO3	2	2	2	-	-	1	2	1	-	2	3
	CO4	2	2	2	2	2	1	2	1	-	2	3
	CO5	2	2	-	-	-	1	-	2	-	-	2
	CO6	2	2	-	2	2	2	2	2	-	-	3
	Average course outcomes =1.69 (max3.00)	**2**	**2**	**2**	**1.6**	**1.6**	**1.3**	**2**	**1.5**	**2**	**2**	**2.6**
BP401T Pharmaceutical Organic Chemistry III (Theory)	CO1	2	1	2	2	2	2	1	2	1	2	2
	CO2	2	-	2	2	2	2	1	2	1	2	2
	CO3	1	-	2	2	2	1	-	1	1	1	1
	CO4	1	2	2	2	1	1	2	-	-	2	-
	CO5	1	2	2	2	1	1	2	1	-	2	2
	Average course outcomes = 1.7 (max 3.00)	**1.4**	**1.7**	**2**	**2**	**1.6**	**1.4**	**1.2**	**1.2**	**1**	**1.8**	**1.7**
BP402T Medicinal Chemistry I (Theory)	CO1	3	3	2	3	3	3	-	2	2	2	3
	CO2	3	3	2	3	3	3	-	2	2	2	3
	CO3	3	3	3	3	3	3	2	2	2	-	3
	CO4	3	3	3	3	3	3	2	3	2	2	3
	CO5	3	3	3	3	3	3	3	2	3	3	3
	Average course outcomes = 2.5 (max 3.00)	**3**	**3**	**2.6**	**3**	**3**	**3**	**2.3**	**2.2**	**2.2**	**2.2**	**3**
BP403T Physical Pharmaceutics II (Theory)	CO1	2	2	2	3	-	2	2	-	-	2	3
	CO2	2	2	3	2	2	1	2	-	2	2	3
	CO3	2	2	-	-	2	-	2	2	2	2	3
	CO4	2	2	2	2	-	2	-	2	-	1	2
	CO5	2	2	2	3	-	1	-	-	-	2	2
	CO6	2	2	2	-	-	2	-	-	-	-	3
	Average course outcomes = 2.06 (max 3.00)	**2**	**2**	**2.2**	**2.5**	**2**	**1.6**	**2**	**2**	**2**	**1.8**	**2.6**
BP404T Pharmacology I (Theory)	CO1	3	-	-	-	-	2	-	-	3	-	-
	CO2	3	-	-	-	-	2	-	-	3	-	-
	CO3	3	-	-	-	-	2	-	-	3	-	-
	CO4	3	-	-	-	-	2	-	-	3	-	-
	CO5	3	-	-	-	-	2	-	-	3	-	-
	CO6	3	-	-	-	-	2	-	-	3	-	-
	Average course outcomes = 2.7 (max 3.00)	**3**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**3**	**-**	**-**
BP405T Pharmacognosy and Phytochemistry I (Theory)	CO1	3	2	-	2	3	2	3	3	2	2	3
	CO2	3	2	-	2	3	2	3	3	2	2	3
	CO3	3	2	-	2	3	2	3	3	2	2	3
	CO4	3	2	-	2	3	2	3	3	2	2	3
	CO5	3	2	-	2	3	2	3	3	2	2	3
	Average course outcomes = 2.5 (max 3.00)	**3**	**2**	**-**	**2**	**3**	**2**	**3**	**3**	**2**	**2**	**3**
BP406P Medicinal Chemistry I (Practical)	CO1	3	3	3	3	3	3	3	2	2	3	3
	CO2	3	3	3	3	3	3	2	3	2	2	3
	CO3	3	3	3	3	3	3	2	3	2	2	3
	CO4	3	2	3	3	3	3	2	3	2	3	3
	CO5	3	3	3	3	3	3	3	3	3	3	3
	Average course outcomes = 2.8 (max 3.00)	**3**	**2.8**	**3**	**3**	**3**	**3**	**2.4**	**2.8**	**2.2**	**2.6**	**3**

BP407P Physical Pharmaceutics II (Practical)	CO1	2	2	-	-	2	2	-	2	-	2	3
	CO2	2	2	-	1	2	2	-	2	-	2	3
	CO3	2	2	2	1	2	2	2	2	2	2	3
	CO4	2	2	-	1	-	-	-	2	-	-	2
	CO5	2	2	1	-	-	-	-	1	-	2	2
	CO6	2	2	-	-	-	-	-	2	1	-	2
	Average course outcomes = 1.84 (max3.00)	**2**	**2**	**1.5**	**1**	**2**	**2**	**2**	**1.8**	**1.5**	**2**	**2.5**
BP408P Pharmacology I (Practical)	CO1	3	-	-	-	-	2	-	-	3	-	-
	CO2	3	-	-	-	-	2	-	-	3	-	-
	CO3	3	-	-	-	-	2	-	-	3	-	-

	CO4	3	-	-	-	-	2	-	-	3	-	-
	CO5	3	-	-	-	-	2	-	-	3	-	-
	Average course outcomes = 2.7 (max 3.00)	**3**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**3**	**-**	**-**
BP409P Pharmacognosy and Phytochemistry I (Practical)	CO1	3	2	-	2	-	2	3	1	2	1	3
	CO2	3	2	-	2	-	2	3	1	2	1	3
	CO3	3	2	-	2	-	2	3	1	2	1	3
	CO4	3	2	-	2	-	2	3	2	2	1	3
	Average course outcomes = 2.1 (max 3.00)	**3**	**2**	**-**	**2**	**-**	**2**	**3**	**1.2**	**2**	**1**	**3**
BP501T Medicinal Chemistry II (Theory)	CO1	3	1	1	3	1	1	-	1	1	1	3
	CO2	3	1	1	3	2	2	-	2	2	3	3
	CO3	3	3	2	3	2	1	-	3	3	2	3
	CO4	3	2	3	3	2	2	-	3	3	2	3
	CO5	3	3	3	3	3	2	-	2	2	3	3
	Average course outcomes = 2.3 (max 3.00)	**3**	**2**	**2**	**3**	**2**	**1.6**	**-**	**2.2**	**2.2**	**2.2**	**3**
BP502T Industrial PharmacyI (Theory)	CO1	2	1	1	2	1	1	-	2	2	1	2
	CO2	2	1	2	2	1	2	1	1	2	2	3
	CO3	2	1	2	2	1	2	1	1	2	2	3
	CO4	1	1	1	2	1	1	1	1	1	2	3
	CO5	2	1	1	2	1	1	1	1	1	2	3
	CO6	2	1	1	2	1	1	1	1	1	2	3
	Average course outcomes = 2.1 (max 3.00)	**1.8**	**1**	**1.3**	**2**	**1**	**1.3**	**1**	**1.1**	**1.5**	**1.8**	**2.8**
BP503T Pharmacology II (Theory)	CO1	3	2	3	-	-	2	-	-	3	-	3
	CO2	3	-	2	-	-	2	-	2	3	1	3
	CO3	3	-	2	2	-	2	-	-	3	-	-
	CO4	3	-	2	-	-	-	-	-	-	1	2
	CO5	3	2	2	2	-	1	1	2	2	-	-
	CO6	3	2	2	3	2	-	2	2	3	3	1
	Average course outcomes = 2.0 (max 3.00)	**3**	**2**	**2.2**	**2.3**	**2**	**1.7**	**1.5**	**2**	**2.8**	**1.6**	**1.5**
BP504T Pharmacognosy and Phytochemistry II (Theory)	CO1	3	3	-	3	2	2	2	3	3	3	2
	CO2	3	3	-	2	2	-	-	3	3	2	2
	CO3	3	3	-	3	2	2	2	3	3	3	3
	CO4	3	3	-	3	2	2	2	3	3	3	3
	CO5	3	3	-	3	2	2	2	3	3	3	3
	Average course outcomes = 2.2 (max 3.00)	**3**	**3**	**-**	**2.8**	**2**	**2**	**2**	**3**	**3**	**2.8**	**2.6**
BP505T Pharmaceutical Jurisprudence (Theory)	CO1	2	2	1	-	1	2	1	2	1	2	3
	CO2	2	2	1	-	1	2	1	2	2	2	3
	CO3	2	2	1	-	1	2	1	2	1	2	3
	CO4	2	2	1	-	1	2	1	2	2	2	3
	CO5	2	2	1	-	1	2	1	2	1	2	3
	CO6	2	2	1	2	1	2	1	2	1	2	3
	Average course outcomes = 1.7 (max 3.00)	**2**	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1.3**	**2**	**3**
BP506P Industrial PharmacyI (Practical)	CO1	2	2	1	2	1	2	1	2	2	1	3
	CO2	2	2	1	2	1	2	1	2	2	1	3
	CO3	2	2	1	2	1	2	1	2	2	1	3
	CO4	2	2	2	2	1	1	1	2	2	1	3
	CO5	2	2	2	2	1	2	1	2	2	1	3
	Average course outcomes = 2.1 (max 3.00)	**2**	**2**	**1.4**	**2**	**1**	**1.8**	**1**	**2**	**2**	**1**	**3**
BP507P Pharmacology II (Practical)	CO1	3	2	2	3	-	-	2	-	2	3	3
	CO2	3	2	2	3	-	-	-	-	-	-	3
	CO3	3	2	2	3	-	-	-	-	-	-	3
	CO4	3	2	2	3	-	-	-	-	-	-	-
	CO5	3	2	2	3	-	-	1	-	-	-	-
	CO6	3	2	2	3	-	-	1	-	-	-	-
	Average course outcomes = 2.4 (max 3.00)	**3**	**2**	**2**	**3**	**-**	**-**	**1.3**	**-**	**-**	**-**	**3**
BP508P Pharmacognosy and Phytochemistry II (Practical)	CO1	3	2	2	2	-	2	3	2	3	2	3
	CO2	3	2	2	3	-	2	3	2	3	2	3
	CO3	3	2	2	3	-	2	3	2	3	2	3
	CO4	3	2	2	2	-	2	3	2	3	2	3
	CO5	3	2	2	2	-	2	3	2	3	2	3
	Average course outcomes = 2.4 (max 3.00)	**3**	**2**	**2**	**2.4**	**-**	**2**	**3**	**2**	**3**	**2**	**3**

BP601T Medicinal Chemistry III (Theory)	CO1	3	1	1	3	1	1	-	1	1	1	3
	CO2	3	3	3	3	3	2	2	2	3	2	3
	CO3	3	3	2	3	2	1	-	3	3	2	3
	CO4	3	2	3	3	2	2	-	3	3	2	3
	CO5	3	3	3	3	3	2	-	2	2	3	3
	Average course outcomes = 2.4 (max 3.00)	**3**	**2.4**	**2.4**	**3**	**2.4**	**1.6**	**2**	**2.2**	**2.4**	**2**	**3**
BP602T Pharmacology III (Theory)	CO1	3	2	3	-	-	2	-	-	-	-	3
	CO2	3	-	2	-	-	2	-	-	-	2	3
	CO3	3	-	2	-	-	2	-	-	-	-	3
	CO4	3	-	2	-	-	-	-	-	-	-	2
	CO5	3	2	2	-	-	1	-	-	-	3	2
	CO6	3	2	2	-	-	2	-	-	-	3	1
	Average course outcomes = 2.3 (max 3.00)	**3**	**2**	**2.2**	**-**	**-**	**1.8**	**-**	**-**	**-**	**2.7**	**2.3**
BP603T Herbal Drug Technology (Theory)	CO1	3	2	2	1	2	2	2	2	3	2	3
	CO2	3	2	2	1	2	2	2	2	3	2	3
	CO3	3	2	2	2	2	2	2	2	3	2	3
	CO4	3	-	2	-	2	2	2	2	3	2	3
	CO5	3	2	2	3	2	2	2	2	3	2	3
	CO6	3	2	2	3	2	2	2	2	3	2	3
	Average course outcomes = 2.3 (max 3.00)	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**3**
BP604T Biopharmaceutics and Pharmacokinetics (Theory)	CO1	3	-	3	3	1	2	-	1	3	2	2
	CO2	3	-	3	3	2	2	-	1	2	2	3
	CO3	3	-	3	3	1	2	1	1	1	2	3
	CO4	3	-	3	3	1	2	1	1	1	2	3
	CO5	3	-	3	2	2	2	-	2	2	2	2
	CO6	3	-	3	3	1	2	-	2	3	1	3
	Average course outcomes = 2.1 (max 3.00)	**3**	**-**	**3**	**2.8**	**1.3**	**2**	**1**	**1.3**	**2**	**1.8**	**2.6**
BP605T Pharmaceutical Biotechnology (Theory)	CO1	2	-	1	-	2	2	-	2	2	2	2
	CO2	2	2	1	2	2	3	2	2	2	2	3
	CO3	2	-	2	-	2	2	1	2	2	3	3
	CO4	2	2	1	2	2	2	1	2	2	2	3
	CO5	2	-	2	-	2	2	2	2	2	2	3
	CO6	2	2	2	2	2	2	2	2	2	2	3
	Average course outcomes = 2.4 (max 3.00)	**2**	**2**	**1.5**	**2**	**2**	**2.16**	**1.6**	**2**	**2**	**2.16**	**2.66**
BP606T Quality Assurance (Theory)	CO1	3	3	-	2	3	3	2	2	2	2	2
	CO2	3	2	-	-	3	2	-	2	-	-	3
	CO3	3	-	-	-	2	2	-	3	-	-	3
	CO4	3	2	3	2	-	-	2	3	-	-	2
	CO5	3	-	3	2	3	2	-	2	2	2	2
	CO6	3	-	3	2	3	2	-	-	-	-	-
	Average course outcomes = 2.4 (max 3.00)	**3**	**2.3**	**3**	**2**	**2.8**	**2.2**	**2**	**2.4**	**2**	**2**	**2.4**
BP607P Medicinal chemistry III (Practical)	CO1	3	2	2	3	3	3	2	2	2	3	3
	CO2	3	2	2	3	3	3	2	2	2	3	3
	CO3	3	2	2	3	2	3	2	2	2	3	3
	CO4	3	2	2	3	2	3	2	2	2	3	3
	CO5	3	2	2	3	3	3	2	2	2	3	3
	Average course outcomes = 2.5 (max 3.00)	**3**	**2**	**2**	**3**	**2.6**	**3**	**2**	**2**	**2**	**3**	**3**
BP608P Pharmacology III (Practical)	CO1	3	2	2	3	-	-	2	-	2	3	3
	CO2	3	2	2	3	-	-	-	-	-	-	3
	CO3	3	2	2	3	-	-	-	-	-	-	-
	CO4	3	2	2	3	-	-	1	-	-	-	-
	CO5	3	2	2	3	-	-	1	-	-	-	-
	CO6	3	2	2	3	-	-	2	-	2	3	3
	Average course outcomes = 2.4 (max 3.00)	**3**	**2**	**2**	**3**	**-**	**-**	**1.5**	**-**	**2**	**3**	**3**
3BP609P Herbal Drug Technology (Practical)	CO1	3	2	-	1	2	2	2	2	3	2	3
	CO2	3	2	-	1	-	2	2	2	3	2	3
	CO3	3	2	-	2	2	2	2	2	3	2	3
	CO4	3	-	-	-	2	2	2	2	3	2	3
	CO5	3	2	1	3	2	2	2	2	3	2	3
	Average course outcomes = 2.4 (max 3.00)	**3**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**3**

BP701T Instrumental Methods of Analysis (Theory)	CO1	3	-	-	-	-	-	-	1	-	-	3
	CO2	3	3	3	3	2	2	3	3	3	3	3
	CO3	3	3	3	3	2	2	3	3	-	-	3
	CO4	3	3	3	3	2	2	3	3	-	-	3
	CO5	3	3	3	3	2	2	3	3	3	3	3
	Average course outcomes = 2.8 (max 3.00)	**3**	**3**	**3**	**3**	**2**	**2**	**3**	**2.6**	**3**	**3**	**3**
BP702T Industrial Pharmacy II (Theory)	CO1	2	2	-	-	-	-	-	3	-	2	-
	CO2	3	2	2	2	2	3	-	2	-	2	3
	CO3	3	2	-	2	-	2	2	3	-	2	3
	CO4	3	2	-	-	-	2	-	3	2	-	3
	CO5	3	2	-	2	2	3	-	2	-	2	2
	CO6	3	2	-	-	-	2	2	2	-	-	2
	Average course outcomes = 2.2 (max 3.00)	**2.8**	**2**	**2**	**2**	**2**	**2.4**	**2**	**2.5**	**2**	**2**	**2.6**
BP703T Pharmacy Practice (Theory)	CO1	2	2	-	2	1	1	3	1	2	2	3
	CO2	2	2	1	2	2	2	1	3	1	1	3
	CO3	3	2	2	1	1	1	1	2	1	1	3
	CO4	3	1	1	2	1	1	2	1	1	1	3
	CO5	3	2	1	1	2	3	1	1	1	1	3
	CO6	3	1	2	1	2	1	1	1	2	1	3
	Average course outcomes = 1.7(max 3.00)	**2.6**	**1.6**	**1.4**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.3**	**1.2**	**3**
BP704T Novel Drug Delivery System (Theory)	CO1	2	1	2	3	1	1	-	1	1	-	-
	CO2	1	1	2	3	-	-	-	1	-	-	1
	CO3	2	1	3	3	2	-	1	-	1	1	1
	CO4	3	1	2	2	1	-	1	2	2	1	1
	CO5	2	-	2	2	-	1	-	-	2	1	-
	Average course outcomes = 1.4 (max 3.00)	**2**	**1**	**2.2**	**2.6**	**1.3**	**1**	**1**	**1.3**	**1.2**	**1**	**1**
BP705P Instrumental Methods of Analysis (Practical)	CO1	3	3	3	3	2	3	3	3	3	3	3
	CO2	3	3	3	3	3	3	3	3	3	3	3
	CO3	3	3	3	3	3	3	3	3	3	3	3
	CO4	3	3	3	3	3	3	3	3	3	3	3
	CO5	3	3	3	3	3	3	3	3	3	3	3
	CO6	3	3	-	3	2	-	-	2	-	3	3
	Average course outcomes = 3.0 (max 3.00)	**3**	**3**	**3**	**3**	**2.7**	**3**	**3**	**3**	**3**	**3**	**3**
BP706PS Practice School	CO1	2	3	1	1	1	1	1	1	1	1	2
	CO2	3	3	2	3	2	1	1	1	2	2	1
	CO3	2	2	2	1	1	1	1	1	1	1	2
	CO4	2	1	2	1	1	1	1	1	1	1	2
	CO5	1	1	1	1	1	1	2	1	1	1	1
	CO6	1	1	1	2	2	1	1	3	1	1	1
	Average course outcomes = 1.4 (max 3.00)	**1.83**	**1.83**	**1.5**	**1.5**	**1.33**	**1**	**1.16**	**1.33**	**1.16**	**1.16**	**1.5**
BP801T Biostatistics and Research Methodology	CO1	3	3	3	3	-	2	2	2	1	2	2
	CO2	3	3	3	3	2	3	-	1	3	3	-
	CO3	2	2	2	-	-	-	-	-	2	-	2
	CO4	3	2	2	-	-	-	-	-	2	-	2
	CO5	3	2	2	-	-	-	-	-	2	-	2
	Average course outcomes = 2.3 (max 3.00)	**2.8**	**2.4**	**2.4**	**3**	**2**	**2.5**	**2**	**1.5**	**2**	**2.5**	**2**
BP802T Social and Preventive Pharmacy	CO1	1	-	-	-	1	1	-	1	1	-	1
	CO2	2	-	-	1	1	1	1	1	1	1	1
	CO3	2	-	-	-	-	1	-	1	1	1	1
	CO4	1	-	-	-	1	1	1	1	2	-	1
	CO5	1	1	-	1	1	1	1	1	1	1	1
	CO6	1	2	2	2	3	1	-	1	1	1	1
	Average course outcomes = 1.2 (max 3.00)	**1.3**	**1.5**	**2**	**1.3**	**1.2**	**1**	**1**	**1**	**1.2**	**1**	**1**
BP803ET Pharma Marketing Management	CO1	3	2	-	1	2	2	2	2	1	2	3
	CO2	3	2	1	1	2	2	2	2	1	2	3
	CO3	3	2	-	1	2	2	2	2	1	2	3
	CO4	3	2	-	1	2	2	2	2	1	2	3
	CO5	3	2	1	1	2	2	2	2	1	2	3
	CO6	3	2	2	1	2	2	2	2	1	2	3
	Average course outcomes = 1.9 (max 3.00)	**3**	**2**	**1.3**	**1**	**2**	**2**	**2**	**2**	**1**	**2**	**3**

BP804ET Pharmaceutical Regulatory Science	CO1	2	2	2	-	1	2	2	2	2	2	3
	CO2	2	2	2	-	1	2	2	2	2	2	3
	CO3	2	2	2	-	1	2	2	2	2	2	3
	CO4	2	2	2	2	1	2	2	2	2	2	3
	CO5	2	2	2	2	1	2	2	2	2	2	3
	CO6	2	2	2	2	1	2	2	2	2	2	3
	Average course outcomes = 2.0 (max 3.00)	**2**	**2**	**2**	**2**	**1**	**2**	**2**	**2**	**2**	**2**	**3**
BP805ET Pharmacovigilance	CO1	1	-	-	-	2	1	1	1	1	1	3
	CO2	1	2	3	3	1	1	3	3	2	2	2
	CO3	-	-	1	1	-	-	3	2	2	2	2
	CO4	3	3	-	-	2	2	3	-	2	2	2
	CO5	-	-	-	-	-	3	-	1	3	2	2
	CO6	3	-	3	2	1	1	1	1	1	2	2
	CO7	3	-	-	-	-	-	-	-	-	-	-
	Average course outcomes = 1.9 (max 3.00)	**1.6**	**2.5**	**2.3**	**2**	**1.5**	**1.6**	**2.2**	**1.6**	**1.8**	**1.8**	**2.2**
BP806ET Quality Control and Standardization of Herbals	CO1	3	2	2	3	1	2	3	2	3	1	3
	CO2	3	2	2	3	1	2	3	2	3	1	3
	CO3	3	2	2	3	1	2	3	2	3	1	3
	CO4	3	2	2	3	1	2	3	2	3	1	3
	CO5	3	2	2	3	1	2	3	2	3	1	3
	CO6	3	2	2	3	1	2	3	2	3	1	3
	Average course outcomes = 2.4 (max 3.00)	**3**	**2**	**2**	**3**	**1**	**2**	**3**	**3**	**3**	**1**	**3**
BP807ET Computer Aided Drug Design	CO1	3	3	3	3	2	3	2	2	2	2	3
	CO2	3	3	3	3	3	3	2	2	2	2	3
	CO3	3	3	3	3	2	3	2	2	2	2	3
	CO4	3	3	3	3	3	3	2	2	2	2	3
	CO5	3	3	3	3	3	3	2	2	2	2	3
	Average course outcomes = 2.6 (max 3.00)	**3**	**3**	**3**	**3**	**2.6**	**3**	**2**	**2**	**2**	**2**	**3**
BP808ET Cell and Molecular Biology	CO1	3	2	2	2	2	3	2	2	2	3	3
	CO2	3	2	3	3	2	2	2	2	2	2	3
	CO3	2	2	3	2	1	2	2	2	2	2	3
	CO4	2	2	2	3	1	2	2	2	2	2	3
	CO5	2	2	2	2	1	2	2	2	2	2	3
	CO6	2	2	3	3	1	2	2	2	2	3	3
	Average course outcomes = 2.2 (max 3.00)	**2.3**	**2**	**2.5**	**2.5**	**1.3**	**2.2**	**2**	**2**	**2**	**2.3**	**3**
BP809ET Cosmetic Science	CO1	3	-	1	-	-	1	-	-	2	-	-
	CO2	-	1	2	3	-	1	2	-	-	-	-
	CO3	2	-	3	3	-	1	2	-	-	-	2
	CO4	-	-	-	3		1	2		2	-	-
	CO5	3	-	2	-	2	-	-	2	2	1	-
	Average course outcomes = 1.9 (max 3.00)	**2.7**	**1**	**2**	**3**	**2**	**1**	**2**	**2**	**2**	**1**	**2**
BP810ET Experimental Pharmacology	CO1	2	2	-	2	-	2	1	1	-	1	1
	CO2	2	2	1	2	-	-	1	-	-	1	1
	CO3	2	2	1	2	-	-	1	-	-	1	1
	CO4	2	-	-	-	2	-	2	1	1	1	1
	CO5	-	2	1	2		-	-	1	1	-	1
	CO6	2	-	-	-	2	-	1	-	1	1	-
	CO7	2	-	-	2		-	1	-	-	1	1
	Average course outcomes = 1.5 (max 3.00)	**2**	**2**	**1**	**2**	**2**	**2**	**1.2**	**1**	**1**	**1**	**1**
BP811ET Advanced Instrumentation Techniques	CO1	3	2	3	3	2	3	2	2	2	3	3
	CO2	3	3	3	3	3	3	3	3	-	-	3
	CO3	3	3	3	3	3	3	2	3	3	3	3
	CO4	3	3	3	3	3	3	2	3	3	3	3
	CO5	3	3	3	3	3	3	3	3	3	3	3
	Average course outcomes = 2.9 (max 3.00)	**3**	**2.8**	**3**	**3**	**2.8**	**3**	**2.4**	**2.8**	**2.7**	**3**	**3**
BP812ET Dietary Supplements and Nutraceuticals	CO1	3	-	2	2	-	3	3	2	3	1	3
	CO2	3	3	2	2	-	3	3	2	3	1	3
	CO3	3	-	-	2	3	2	3	2	3	1	3
	CO4	3	2	3	2	3	3	3	2	3	1	3
	CO5	3	3	3	-	3	3	3	2	3	1	3

	Average course outcomes = 2.5 (max 3.00)	**3**	**2.7**	**2.5**	**2**	**3**	**2.8**	**3**	**2**	**3**	**1**	**3**
BP813PW Project Work	CO1	2	**3**	**2**	**1**	**1**	**1**	**1**	**1**	**2**	**1**	**1**
	CO2	**2**	**2**	**2**	**3**	**1**	**1**	**1**	**1**	**2**	**1**	**2**
	CO3	1	2	2	1	2	1	1	1	1	1	1
	CO4	2	2	2	2	1	1	1	1	1	1	1
	CO5	2	2	2	2	1	2	1	2	1	1	2
	CO6	2	3	2	2	3	1	1	3	1	1	1
	Average course outcomes = 1.6 (max 3.00)	**1.83**	**2.33**	**2**	**1.83**	**1.5**	**1.16**	**1.33**	**1.5**	**1.33**	**1**	**1.33**

PRINCIPAL