



Hon. Shri. Babanrao Pachpute Vichardhara Trust's Group of Institutions

Faculty of Pharmacy

A/P-Kashti, Tal-Shrigonda, Dist-Ahmednagar, Pin- 414701

Approved by PCI, New Delhi, Affiliated to Savitribai Phule Pune University, Pune & MSBTE, Mumbai.

Website – www.parikrama.edu.in, Phone – 9786126772, Email – pariphr@gmail.com

Vision – "To serve with high quality education for development of students as competent pharmacy professionals for the upliftment of socio-economic status in rural areas"



2.6 Student Performance and Learning Outcome

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs)

Academic Year 2023-24



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INDEX

Sr. No.	Document	Page No.
1.	Course Outcomes (COs) and Programme Outcomes (POs) for all Programmes and its process	1
2.	Pharmacy Programme outcomes (PO's)	2
3.	Programme Educational Objective's (PEO's)	4
4.	Course Outcome (CO's)	
a)	B. Pharmacy (Academic Year 2023-24)	5
b)	M. Pharmacy (Academic Year 2023-24)	26
5.	CO-PO Mapping	
a)	B. Pharmacy (Academic Year 2023-24)	30
b)	M. Pharmacy (Academic Year 2023-24)	46

2.6.1: Programme Outcomes (POs) and Course Outcomes (COs)

The institution has clearly defined and displays Programme Outcomes (POs) and Course Outcomes (COs) for all programs on its official website. The attainment of POs and COs is systematically evaluated to ensure alignment with the institution's academic goals and regulatory standards.

Adopting Outcome-Based Education (OBE)

Outcome-Based Education (OBE) is a student-centered approach that focuses on achieving specific competencies by the end of a course or program. Unlike traditional learning, which emphasizes memorization of facts, OBE emphasizes analytical, evaluative, and creative thinking, following Bloom's Taxonomy.

H.S.B.P.V.T., G.O.I., Faculty of Pharmacy, Pune, introduced OBE in the academic year 2019-20, adhering to the guidelines of NAAC and the National Board of Accreditation (NBA). The Program Outcomes (POs) established by the NBA are used as benchmarks, and Course Outcomes (COs) are defined in alignment with the university syllabus.

Developing and Displaying COs and POs

1. Creation of COs:

- Each course has six clearly defined COs, formulated by the course instructor in consultation with the Head of Department (HOD).
- The COs are designed using Bloom's Taxonomy to ensure a focus on higher-order thinking skills, such as analysis, evaluation, and design.

2. CO-PO Mapping:

- Each CO is mapped to relevant POs using a scale:
 - 1: Low correlation
 - 2: Medium correlation
 - 3: High correlation
 - -: No correlation
- This mapping highlights how course objectives contribute to overall program goals.

3. Communication and Accessibility:

- POs and COs are prominently displayed on the institution's official website for transparency.
- Faculty members communicate COs to students at the start of each course to ensure clarity of objectives and expectations.

Evaluation and Attainment

The attainment of POs and COs is measured based on student performance and course complexity. The course instructor, in consultation with the HOD, determines the attainment levels, ensuring that they reflect the difficulty of the course and its objectives.

This structured evaluation process ensures continuous improvement in teaching methods and learning outcomes, aligning the institution's academic framework with global standards.

Benefits of OBE

Through OBE, students achieve not only academic knowledge but also critical competencies that prepare them for professional success. The systematic approach ensures that the learning objectives are measurable and aligned with the desired program outcomes.

By adopting OBE, the institution has enhanced the quality of education, improved stakeholder awareness, and ensured compliance with accreditation standards, fostering a learning environment that prioritizes student success.





Pharmacy Programme Outcome

PO 1: Pharmacy Knowledge: Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.

PO2: Planning Abilities: Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.

PO3: Problem analysis: Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.

PO4: Modern tool usage: Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.

PO5: Leadership skills: Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.

PO6: Professional Identity: Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).

PO7: Pharmaceutical Ethics: Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.




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PO8: Communication: Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.

PO9: The Pharmacist and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.

PO10: Environment and sustainability: Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO11: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self- assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.




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Program Educational Objectives (PEOs)

1. To provide knowledge associated with pharmacy profession.
2. To inculcate professional and ethical attitude with lifelong learning habits in students to develop competent pharmacy professionals.
3. To develop entrepreneurship skills and leadership traits in students to facilitate improvement in health and wellbeing of society.




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B. Pharmacy
Academic Year 2023-24
Course Outcomes

First Year B. Pharmacy	
First Semester	
BP101T Human Anatomy and Physiology I: Theory	
CO ID.	Course Outcome
BP101T.1	Clarify introduction of human body, the cellular level of organization and tissue level of organization.
BP101T.2	Explain integumentary system, skeletal system and joints.
BP101T.3	Explain composition and function of blood component, formation of haemoglobin, mechanism of blood coagulation, blood grouping and disorders of blood.
BP101T.4	Understand lymphatic system and special sense organs.
BP101T.5	Discuss role of peripheral nervous system.
BP101T.6	Describe cardiovascular system.
BP102T Pharmaceutical Analysis: Theory	
CO ID.	Course Outcome
BP102T.1	Know scope of pharmaceutical analysis and types of errors
BP102T.2	Illustrate acid base titration
BP102T.3	Discuss non aqueous titration
BP102T.4	Summarise different titration methods.
BP102T.5	Estimate about Redox titration.
BP102T.6	Explain different electrochemical methods of analysis.
BP103T Pharmaceutics I: Theory	
CO ID.	Course Outcome
BP103T.1	Describe History, development, different dosage forms, Prescription, Posology in Pharmacy Profession
BP103T.2	Explain Liquid Dosage forms with its Pharmaceutical Calculations
BP103T.3	Discuss on Biphasic and Monophasic dosage forms
BP103T.4	Summarize Pharmaceutical Incompatibility and Suppositories
BP103T.5	Explain Semisolid dosage forms with its Evaluation
BP103T.6	Describe the preparation of dosage forms.
BP104T Pharmaceutical Inorganic Chemistry: Theory	
CO ID.	Course Outcome



BP104T.1	State the sources, types of impurities and methods of preparation of inorganic compounds.
BP104T.2	Know acid, Bases & Buffers.
BP104T.3	Point out major extra intracellular electrolytes & dental products.
BP104T.4	Summarize Gastrointestinal agents.
BP104T.5	Outline medicinal & pharmaceutical importance of various categorized inorganic compounds.
BP104T.6	Explain in detail about Radiopharmaceuticals with their applications.
BP105T Communication Skills: Theory	
CO ID.	Course Outcome
BP105T.1	Illustrate the communication importance.
BP105T.2	Discuss basic communication skills like asking question, meeting people.
BP105T.3	Recall pronunciations like consonant and vowel sounds.
BP105T.4	Study advanced techniques like listening comprehension, direct & indirect speech.
BP105T.5	Develop effective communication.
BP105T.6	Learn advanced techniques like e-mail etiquette.
BP106RBT Remedial Biology: Theory	
CO ID.	Course Outcome
BP106RBT.1	Explain the classification and salient features of five kingdoms of life.
BP106RBT.2	understand the basic components of anatomy & physiology of plant.
BP106RBT.3	understand the basic components of anatomy & physiology animal with special reference to human.
BP106RMT Remedial Mathematics: Theory	
CO ID.	Course Outcome
BP106T.1	Explain the theory and application of partial of partial fraction, logarithm, functions, limits and continuity
BP106T.2	Solve matrices and determinants
BP106T.3	Tell the applications of calculus with differentiation
BP106T.4	Make use of analytical geometry in pharmacy
BP106T.5	Apply Laplace transform and differential equation in solving chemical kinetics and pharmacokinetic equation
BP107P Human Anatomy and Physiology I: Practical	
CO ID.	Course Outcome



BP 107P.1	Memorize handling of compound microscope and study various animal tissues.
BP 107P.2	Summarize the characteristics of different bones.
BP 107P.3	Identify the bleeding, clotting time and blood groups.
BP 107P.4	Analyze the blood cells using hematocytometry.
BP 107P.5	Estimate the haemoglobin concentration, %Hb, oxygen carrying capacity of human blood and blood pressure.
BP 107P.6	Predict the erythrocyte sedimentation rate of human blood and heart rate and pulse rate.
BP108P Pharmaceutical Analysis: Practical	
CO ID.	Course Outcome
BP108P.1	Preparation of various drug like Sodium Hydroxide, Sulphuric Acid/HCL.
BP108P.2	Carry out Assay of Different compound like Ammonium Chloride, Sodium benzoate, Sodium Chloride
BP108P.3	Estimate assay of different compound like Cal. gluconate, Hydrogen peroxide, Ferrous sulphate, Copper sulphate
BP108P.4	Standardization of Various Compound like Sodium Thiosulphate, Potassium Permanganate, Ceric Ammonium Sulphate
BP108P.5	Determination of normality by electro-analytical method
BP108P.6	Measurement of refractive index of some samples
BP109P Pharmaceutics I: Practical	
CO ID.	Course Outcome
BP109P.1	Formulate and evaluate various liquid dosage forms
BP109P.2	Formulate and Evaluate Biphasic suspension dosage forms
BP109P.3	Prepare and Evaluate emulsion, gargles and mouthwash dosage forms
BP109P.4	Prepare and evaluate solid dosage forms.
BP109P.5	Formulation and evaluation of suppositories.
BP109P.6	Prepare and evaluate of semisolid dosage forms.
BP110P Pharmaceutical Inorganic Chemistry: Practical	
CO ID.	Course Outcome
BP110P.1	Carry out limit test of following inorganic compounds. Chloride, Sulphate, Iron.
BP110P.2	Evaluate limit test of various ions. Arsenic, Lead, Heavy metals.
BP110P.3	Identify the following inorganic compounds by using various test. Magnesium hydroxide, Ferrous sulphate, Sodium Bicarbonate.
BP110P.4	Apply various test for the identifications of calcium gluconate & copper sulphate.





BP110P.5	Use certain test for purity.
BP110P.6	Experiment preparation of different inorganic pharmaceutical compounds.
BP111P Communication Skills: Practical	
CO ID.	Course Outcome
BP111P.1	Illustrate the communication importance.
BP111P.2	Discuss basic communication skills like asking question, meeting people.
BP111P.3	Recall pronunciation like consonant and vowel sounds.
BP111P.4	Study advanced techniques like listening comprehension, direct & indirect speech.
BP111P.5	Develop effective communication.
BP111P.6	Learn advanced techniques like e-mail etiquette.

First Year B. Pharmacy	
Second Semester	
BP201T Human Anatomy and Physiology II: Theory	
CO ID.	Course Outcome
BP201T.1	Explain the gross morphology, structure and functions of Nervous system
BP201T.2	Discuss on digestive system and energetics
BP201T.3	illustrate anatomy of respiratory system & urinary system
BP201T.4	Discuss on Endocrine system
BP201T.5	Understand to genetics
BP201T.6	Understand the physiology of male and female reproductive organs.
BP202T Pharmaceutical Organic Chemistry I: Theory	
CO ID.	Course Outcome
BP202T.1	Know the basic principles of organic chemistry.
BP202T.2	Outline the different types of isomerism, Nomenclature, and classes of organic compound.
BP202T.3	Summarize the Hybridization of Alkanes, Alkenes and stability study of conjugated dienes with their properties.
BP202T.4	Explain nucleophilic substitution reaction and structure, uses of various alkyl halides.
BP202T.5	Illustrate various reactions, structures and uses of aldehydes and ketones.
BP202T.6	Discuss structures, uses, effects of carboxylic acid and aliphatic amines.



BP203T Biochemistry: Theory	
CO ID.	Course Outcome
BP203T.1	Describe biomolecules and carbohydrates metabolism
BP203T.2	Illustrate the concept of biological oxidation and bioenergetics
BP203T.3	Explain metabolism process of lipid
BP203T.4	Explain metabolism process amino acid
BP203T.5	Describe nucleic acid metabolism and genetic information transfer
BP203T.6	Summarize role and important of enzyme in biochemical process
BP204T Pathophysiology: Theory	
CO ID.	Course Outcome
BP204T.1	Explain basic principles of cell injury, adaptation and mechanism involved in process of pain and inflammation.
BP204T.2	Explain the Pathophysiology of various Diseases of CVS, Respiratory system and renal system.
BP204T.3	Describe the haematological diseases & pathophysiology of endocrine system.
BP204T.4	Analyze the pathophysiology of nervous system & gastrointestinal system.
BP204T.5	Identify Disease of bones and joints.
BP204T.6	Define Infectious Diseases & Sexually Transmitted Diseases.
BP205T Computer Applications in Pharmacy: Theory	
CO ID.	Course Outcome
BP205T1	Explain different number system.
BP205T2	Understand different software's.
BP205T3	Study different types of web technologies.
BP205T4	Discuss the applications of computer in pharmacy.
BP205T5	Explain about bioinformatics.
BP205T6	Outline the data analysis in preclinical development by using computers.
BP206T Environmental sciences: Theory	
CO ID.	Course Outcome
BP206T.1	Explain about different natural resources.
BP206T.2	Clarify problem association with natural resources.
BP206T.3	Describe concept and structure of ecosystem.
BP206T.4	Illustrate function of ecosystem.
BP206T.5	Classify environmental pollution



BP206T.6	Explain various problem arises due to pollution
BP207P Human Anatomy and Physiology II: Practical	
CO ID.	Course Outcome
BP207P1	Understand the construction, working, care and handling of instruments, glassware and equipment's required for practicals.
BP207P2	Perform the haematological tests like blood cell counts, hemoglobin estimation, bleeding/clotting time etc and also record blood pressure, heart rate, pulse and respiratory volume
BP207P3	Explain working pattern of different organs of each system
BP207P4	Describe the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.
BP207P5	Determine the techniques for the identification, counting of various integral components of the body
BP207P6	To study structural and microscopically aspects various organs of human body
BP208P Pharmaceutical Organic Chemistry I: Practical	
CO ID.	Course Outcome
BP208P.1	Tell about safety measures in an organic laboratory.
BP208P.2	Demonstrate the different laboratory techniques.
BP208P.3	Experiment systematic qualitative analysis of unknown organic compound.
BP208P.4	Apply various test to analyze unknown organic compound.
BP208P.5	Develop suitable solid derivatives from organic compounds.
BP208P.6	Show construction of molecular models.
BP209P Biochemistry: Practical	
CO ID.	Course Outcome
BP209P.1	Qualitative analysis of carbohydrates and urine sample
BP209P.2	Identification test of proteins
BP209P.3	Determination of blood creatinine and blood sugar
BP209P.4	Determine serum total cholesterol and saliva amylase activity
BP209P.5	Quantitative analysis of reducing sugar and proteins
BP209P.6	Study the effect of temperature and substrate concentration on salivary amylase activity
BP210P Computer Applications in Pharmacy: Practical	
CO ID.	Course Outcome





BP210P1	Write the design of particular disease & drug questionnaires by using MS-Word
BP210P2	Create HTML web page to show personal information.
BP210P3	Creating of patient database & mailing labels by using MS-Access & MS-Word
BP210P4	Categories patient record, generate report & print of report by using online database
BP210P5	Designing invoice table, storage & retrieval creating & working of queries by online tools.
BP210P6	Exporting tables, queries forms & report to web & XML page.

Second Year B. Pharmacy Third Semester	
BP301.T Pharmaceutical Organic Chemistry II: Theory	
CO ID.	Course Outcome
BP301T.1	Students are able to explain benzene and its derivatives
BP301T.2	Summarize phenols and aromatic amines.
BP301T.3	Discuss stereochemistry.
BP301T.4	Elaborate polynuclear hydrocarbons.
BP301T.5	Recall cycloalkanes
BP301T.6	Describe fats and oils.
BP302T Physical Pharmaceutics – I: Theory	
CO ID.	Course Outcome
BP302T.1	Utilize the knowledge of solubility of drugs in formulation along with Raoult's law.
BP302T.2	Explain various physicochemical properties of drug molecules with different properties of state of matter.
BP302T.3	Acquire sufficient knowledge about surface and interfacial tension with its measurement methods
BP302T.4	Outline physicochemical properties, complexation and protein binding of drug molecules.
BP302T.5	Explain the importance of pH, buffer and isotonic solution in pharmaceutical and biological system.
BP302T.6	Utilize the knowledge of solubility of drugs in formulation along with Raoult's law.
BP303T Pharmaceutical Microbiology: Theory	
CO ID.	Course Outcome





BP303.T1	Describe the concept of Pharmaceutical microbiology with history, its applications, importance and scope in pharmaceutical industries.
BP303.T2	Discuss classification, ultrastructure, isolation, preservation, measurement & cultivation of bacteria and raw material nutritional requirement used for culture media.
BP303.T3	Discuss staining techniques & biochemical tests used for identification of bacteria and summarize the importance and implementation of sterilization in pharmaceutical processing and industry.
BP303.T4	Elaborate Fungi and Virus, describe disinfection & sterility testing of pharmaceutical products.
BP303.T5	Explain different microbiological assays & microbiological standardization of Pharmaceuticals.
BP303.T6	Explain microbial spoilage and cell culture technology and its applications in pharmaceutical industries.
BP304T Pharmaceutical Engineering: Theory	
CO ID.	Course Outcome
BP304T.1	Know the concepts of Flow of Fluids
BP304T.2	Understand size reduction and size separation with its instrumental method.
BP304T.3	Explain heat transfer, Evaporation, Distillation with its principle, construction and working.
BP304T.4	Discuss principle, mechanism, construction, working of drying and mixing.
BP304T.5	Elaborate Filtration and Centrifugation method in detail.
BP304T.6	Understand corrosion and its prevention.
BP305P Pharmaceutical Organic Chemistry II: Practical	
CO ID.	Course Outcome
BP305P.1	Demonstration on steam distillation method.
BP305P.2	Carryout saponification value of oil samples.
BP305P.3	Experiments on separation of binary mixture.
BP305P.4	Synthesis of various organic compounds by condensation method
BP305P.5	Synthesis of various organic compounds by fuming hood method
BP305P.6	Demonstration on recrystallization of organic compounds.
BP306P Physical Pharmaceutics – I: Practical	
CO ID.	Course Outcome
BP306P.1	Determine the Upper consolute temperature & % composition of NaCl in a solution using phenol-water system by CST method.
BP306P.2	Determination the solubility of drug at room temperature, in different solvent and heat of solution



BP306P.3	Determination of surface tension of given liquids by drop count and drop weight method using ostwalds stalometer.
BP306P4	Determination of critical micellar concentration and HLB value of given surfactants
BP306P5	Determination of Partition co- efficient of benzoic acid and iodine in benzene, CCl ₄ and water.
BP306P6	Determination of stability constant and donor acceptor ratio and pK _a value by using different method.
BP307P Pharmaceutical Microbiology: Practical	
CO ID.	Course Outcome
BP307.P1	Explain the principle, construction and working of various instruments.
BP307.P2	Carryout the Biochemical test
BP307.P3	Carryout sterilization of glassware's and prepared nutrient agar and nutrient broth media
BP307.P4	Evaluate the morphology of bacteria by using Simple, gram and acid-fast staining and motility of bacteria by hanging drop technique.
BP307.P5	Carryout sub culturing of various microorganisms and isolation by streak plate technique and pour plate technique.
BP307.P6	Perform microbiological assay and sterility test of Pharmaceutical product
BP308P Pharmaceutical Engineering: Practical	
CO ID.	Course Outcome
BP308T.1	Perform experiments related to unit operation
BP308T.2	Describe the equipment's used in the manufacture of pharmaceutical products.
BP308T.3	Interpret results of the experiments conducted.
BP308T.4	Explain the effect of Surface area, thickness, concentration, thickness on rate of evaporation and filtration
BP308T.5	Illustrate the material and energy requirements for optimizing the pharmaceutical unit processes.
BP308T.6	Determine the rate of crystallization, uniformity index by using double cone blender
BP105T Communication Skill: Theory (Direct Second Year Students)	
CO ID.	Course Outcome



BP105T.1	Describe the concept of communication along with barriers.
BP105T.2	Illustrate communication perspective and verbal, non-verbal types.
BP105T.3	Adapt basic skill required for style of communication and basic listening skills.
BP105T.4	summarise effective communication with effectively writing skill.
BP105T.5	Develop interview and presentation skills.
BP105T.6	Build confidence & leadership qualities.

Second Year B. Pharmacy:**Fourth Semester****BP401T Pharmaceutical Organic Chemistry III: Theory**

CO ID.	Course Outcome
BP401T.1	Explain the stereochemical aspects of organic compounds and stereochemical reactions.
BP401T.2	Describe geometric isomerism
BP401T.3	Describe Heterocyclic chemistry.
BP401T.4	Summarize the chemistry, synthesis, reaction with medicine use of furan pyrrol and thiophene.
BP401T.5	Know the medicinal uses and other applications of organic compounds.
BP401T.6	Illustrate different name reactions.

BP402T Medicinal Chemistry I: Theory

CO ID.	Course Outcome
BP402T.1	Adapt knowledge of development medicinal chemistry and explain physicochemical properties and drug metabolism.
BP402T.2	Describe drugs acting on autonomic nervous system.
BP402T.3	Explain the chemical classification and SAR of parasympathomimetic and cholinergic blocking agents.
BP402T.4	Describe the classification and SAR of drugs acting on sedative hypnotics, antipsychotics, anticonvulsant and general anaesthetics.
BP402T.5	Determine the SAR of centrally acting analogues and narcotic antagonists.
BP402T.6	Discuss SAR of Various Classes of Drugs

BP403T Physical Pharmaceutics II: Theory

CO ID.	Course Outcome
BP403T.1	Explain various type, characteristics and properties of colloidal dispersion along with its stability.
BP403T.2	Illustrate fundamentals and applications of rheology in pharmaceutical formulation along with deformation of solid.





BP403T.3	Explain formulation, evaluation of suspension.
BP403T.4	Discuss formulation, evaluation and stability of emulsion.
BP403T.5	Estimate the properties of particles with its determination methods and explain derived properties of powder.
BP403T.6	Describe chemical kinetics and accelerated stability testing.
BP404T Pharmacology I: Theory	
CO ID.	Course Outcome
BP404T.1	Describe basics of pharmacology, various route of drug administration.
BP404T.2	Understand pharmacokinetics and pharmacodynamics.
BP404T.3	Explain adverse drug reaction, drug interaction and process of new drug discovery.
BP404T.4	Explain pharmacology of drugs acting on peripheral nervous system.
BP404T.5	Describe neurohumoral transmission in CNS, general anesthetics, Sedative-hypnotics, Anti-epileptics with their classification and pharmacology of drugs.
BP404T.6	Explain pharmacology of drugs acting on CNS
BP405T Pharmacognosy and Phytochemistry I: Theory	
CO ID.	Course Outcome
BP405T1	Understand the basic concept of Pharmacognosy scope and development of pharmacognosy and discuss the sources and basis of classification and quality control of crude drugs
BP405T2	Explain cultivation, collection, processing and storage of drugs from natural source of origin and factors affecting cultivation of medicinal plants.
BP405T3	Summarize the application of plant tissue culture techniques in the production of secondary metabolites and discuss the concept of polyploidy, mutation and hybridization with reference to medicinal plants.
BP405T4	Explain plant description, morphology, and anatomy along with definition, classification, properties and identification tests of secondary metabolites like Alkaloids, Glycosides, Flavonoids, Tannins, Volatile oil and Resins.
BP405T5	Describe the biological source, chemical nature and uses of primary metabolites like carbohydrates, lipids, proteins, enzymes etc.
BP405T6	Understand and elaborate the novel medicinal agents of cardiovascular and anti-cancer category from marine sources.
BP406P Medicinal Chemistry I: Practical	
CO ID.	Course Outcome
BP406P.1	To illustrate synthesis of Benzimidazole, Benzotriazole and Phenytoin
BP406P.2	Experiment out synthesis of Benzocaine, phenothiazine, Barbiturate, 2,3-diphenylquinoxiline



BP406P.3	carryout assay of Ibuprofen, phenobarbitone & Atropine
BP406P.4	perform Assay of Aspirin, Furosemide and Chlorpromazine
BP406P.5	Determine partition coefficient of Benzoic acid between benzene and water.
BP406P.6	Detect partition coefficient value of Benzoic acid between benzene and water.
BP407P Physical Pharmaceutics II: Practical	
CO ID.	Course Outcome
BP407P.1	Evaluation of paracetamol granules by using aqueous binder.
BP407P.2	Determine precompression parameter & effect of glidant on angle of repose of given sample.
BP407P.3	Determine particle size using Microscopic and sieving method.
BP407P.4	Determine viscosity and percent concentration of liquid by using Ostwalds viscometer
BP407P.5	Determine the sedimentation value with single and different suspending agent.
BP407P.6	Determine reaction rate constant and accelerated stability studies of given sample.
BP408P Pharmacology I: Practical	
CO ID.	Course Outcome
BP408P.1	Adapt knowledge of handling of different laboratory equipment's and animals as per CPCSEA guidelines.
BP408P.2	Demonstrate common laboratory techniques. Blood withdrawal, serum and plasma separation, anaesthetics and euthanasia used for animal studies.
BP408P.3	Evaluate different routes of drugs administration in mice/rats and effect of hepatic microsomal enzyme inducers on the phenobarbitone sleeping time in mice.
BP408P.4	Evaluate effect of drugs on ciliary motility of frog esophagus, rabbit eye and identify effects of skeletal muscle relaxants using rota-rod apparatus.
BP408P.5	Identify effect of drugs on locomotor activity using actophotometer, Anticonvulsant effect of drugs by MES and PTZ method and study stereotype and anti-catatonic activity of drugs on rats/mice.
BP408P.6	Demonstrate anxiolytic activity of drugs using rats/mice and local anaesthetics by different methods.
BP 409 P Pharmacognosy and Phytochemistry I: Practical	
CO ID.	Course Outcome
BP409P1	Analyze the samples of crude drug by physical and chemical characteristics.
BP409P2	Estimate leaf constants viz. stomatal numbers, vein islets numbers and palisade ratio quantitatively.





BP409P3	Illustrate characteristics of starch grains and calcium oxalate crystals present in crude drugs
BP409P4	Carry out the physical evaluations of the crude drugs.
BP409P5	Integrate length and width of natural fibers.
BP409P6	Determination of swelling and foaming index of crude drugs.

Third Year B. Pharmacy: Fifth Semester	
BP501T Medicinal Chemistry-II: Theory	
CO ID.	Course Outcome
BP501T1	Describe Antihistaminic agents.
BP501T2	Explain autacoids.
BP501T3	Write classification, nomenclature, structure activity relationship, mechanism of action, adverse effects, and therapeutic uses of various drugs acting on cardiovascular system
BP501T4	Explain various drugs acting on endocrine system.
BP501T5	Summarize different Antidiabetic agents.
BP501T6	Illustrate local anaesthetics
BP502T Industrial Pharmacy-I: Theory	
CO ID.	Course Outcome
BP502T.1	Explain pre-formulation studies with Physicochemical properties of drug molecule
BP502T.2	Discuss the tablet with coating, Quality control tests and liquid orals
BP502T.3	Know about hard gelatin, soft gelatin and pellets in detail.
BP502T.4	Discuss on parenteral products with container and closures along with ophthalmic preparation
BP502T.5	Explain cosmetics and pharmaceutical aerosols
BP502T.6	Explain packaging material Science
BP503.T Pharmacology – II: Theory	
CO ID.	Course Outcome
BP503T.1	Explain the pharmacology of the drugs acting on various Cardiac complications
BP503T.2	Organize the drug used in shock, plasma expander, hematinic and drugs acting as diuretics and antidiuretics
BP503T.3	Summarize the role of autacoids & its related drugs
BP503T.4	Illustrate the role of endocrine hormones and their analogues.
BP503T.5	Describe the Pharmacology of drug acting on endocrine system
BP503T.6	Demonstrate the Bioassay





BP504T Pharmacognosy and Phytochemistry II: Theory	
CO ID.	Course Outcome
BP504T.1	Outline the Metabolic pathways in higher plants and their Biogenetic studies
BP504T.2	Classify and explain secondary metabolites like alkaloids, glycosides, tannins, volatile oil etc.
BP504T.3	Demonstrate the steps involved in isolation, identification and analysis of phytoconstituents like terpenoids, glycosides, alkaloids and resins.
BP504T.4	Understand the industrial production, estimation and utilization of Phytoconstituents
BP504T.5	Assess the crude drugs by modern methods of extraction, spectroscopy, chromatography in the isolation, purification and identification of crude drugs.
BP504T.6	Utilize non-chromatographic techniques for separation and/ purification of phytoconstituents.
BP505T Pharmaceutical Jurisprudence: Theory	
CO ID.	Course Outcome
BP505T.1	Discuss about the drug and cosmetic act, 1940 and its rules 1945.
BP505T.2	Discuss in detail about D&C Act (Schedules, Sale, Administration).
BP505T.3	Explain Pharmacy act-1948, Medicinal & Toilet preparation act-1955, Narcotic & Psychotropic substance act-1985.
BP505T.4	Discuss about the drug & magic remedies act, Prevention of cruelty to animals act, National pharmaceutical pricing authority.
BP505T.5	Illustrate Pharmaceutical legislation & Code of Pharmaceutical ethics.
BP505T.6	Elaborate medical termination of pregnancy act, right to information act & Intellectual Property Right.
506 P Industrial Pharmacy-I: Practical	
CO ID.	Course Outcome
BP506P.1	Perform preformulation studies on paracetamol/ Aspirin and other drug
BP506P.2	Formulate and evaluate paracetamol tablet Aspirin tablet tetracycline capsules calcium Gluconate injection and ascorbic acid injection
BP506P.3	Perform coating of tablet film coating of tablets and granules
BP506P.4	Carry out Quality Control test of marketed tablet and capsule
BP506P.5	Formulate eye drop, eye ointment, cream cold / vanishing cream
BP506P.6	Evaluate Glass containers
BP507.P Pharmacology – II: Practical	
CO ID.	Course Outcome
BP507P.1	Illustrate the importance of Physiological salt solutions and identify the effect of various drugs on isolated organs of different animals



BP507P.2	Demonstrate Dose response relationship, effect of drug on DRC by various bioassay methods
BP507P.3	Describe methods to categorize PA2 & PD2 value using organs of various animals
BP507P.4	Relate the effect of Spasmogens & Spasmolytic in isolated organs of different animals also learn about various screening models for analgesic and anti-inflammatory
BP507P.5	Understand the mechanism involved in antiallergic activity and mast cell stabilization effect
BP507P.6	Explain the case study
BP508 P Pharmacognosy and Phytochemistry II: Practical	
CO ID.	Course Outcome
BP508P.1	Identify and draw the crude drugs for its morphological, histological and powder characteristics and to report the types of adulterants and substitutes present
BP508P.2	Demonstrate skill of plant material/crude drug sectioning, staining, mounting and focusing
BP508P.3	Utilize method of extraction and determine phytoconstituents using Thin Layer Chromatographic (TLC) technique
BP508P.4	Make use of distillation of volatile oils and predict phytoconstituents by TLC
BP508P.5	Apply Paper chromatography for separation of sugars
BP508P.6	Analyze unorganized crude drugs by chemical tests

Third Year B. Pharmacy:	
Sixth Semester	
BP601T Medicinal Chemistry III: Theory	
CO ID.	Course Outcome
BP601T.1	Write classification, nomenclature, structure activity relationship, mechanism of action, adverse effects, and therapeutic uses of various Antibiotics and antimalarial agents.
BP601T.2	Describe Antimycobacterial and Antiviral agents.
BP601T.3	Explain various Anti-Infective agents.
BP60 T.4	Summarize different Anti-neoplastic agents.
BP601T.5	Discuss drug design techniques.
BP601T.6	Draw the scheme of synthesis of different medicinal compounds.
BP602 T Pharmacology III: Theory	



CO ID.	Course Outcome
BP602T.1	Explain Pharmacology of the drugs acting on respiratory system
BP602T.2	understand the pharmacology of drugs acting on gastrointestinal tract.
BP602T.3	Explain the general principles of chemotherapy, and pharmacology of sulfonamides and antibiotics
BP602T.4	Describe the chemotherapy of infectious diseases.
BP602T.5	State the role of chemotherapeutic agents in urinary tract infection,sexually transmitted diseases and immunopharmacology
BP602T.6	Know the principle of toxicology and chronopharmacology

BP603T Herbal Drug Technology: Theory

CO ID.	Course Outcome
BP603T1	Describe herbs as raw material, biodynamic agriculture and various systems of medicine.
BP603T2	Explain nutraceuticals and interactions of herbs with drug and food.
BP603T3	Illustrate the role of herbal excipients in herbal cosmetics and formulations.
BP603T4	Evaluation of drugs as per WHO and ICH guidelines
BP603T5	Explain patenting and regulatory requirements of natural products.
BP603T5	Summarize the present scope and future prospects of herbal industries and Schedule T

BP604T Biopharmaceutics and Pharmacokinetics: Theory

CO ID.	Course Outcome
BP604T1	Describe the process of absorption and distribution along with protein binding.
BP604T2	Explain the concept of elimination.
BP604T3	Discuss the concept of Bioavailability and Bioequivalence.
BP604T.4	Recognize pharmacokinetic parameters.
BP605T5	Explain multi compartment models.
BP605T6	Discuss on nonlinear Pharmacokinetics

BP605T Pharmaceutical Biotechnology: Theory

CO ID.	Course Outcome
BP605T.1	Know concepts of Biotechnology, Enzyme Biotechnology, Biosensors, Protein Engineering, and Microbes.
BP605T.2	Explain rDNA technology, genetic engineering, and PCR.
BP605T.3	Explain the importance of biotechnological products along with immunity.
BP605T.4	Discuss general method of the preparation of vaccines, toxoids, antitoxin, serum immune induced blood derivatives and products.





BP605T.5	Outline the concepts of immunoblotting techniques, microbial transformation, mutation along with microbial genetics.
BP605T6	Describe fermentation process and blood products.
BP606T Quality Assurance: Theory	
CO ID.	Course Outcome
BP606T1	Describe various concept of Quality Assurance and Quality Management system with respect to regulatory agencies
BP606T2	Understand the ICH guidelines, QbD, ISO9000 & ISO14000 and NABL accreditation
BP606T3	Outline the organization with respect with personnel, premises, equipment and raw material requirement.
BP606T4	Illustrate quality control of packaging material, good laboratory practices and role of CPCSEA.
BP606T5	Explain the importance of complaints and documentation in pharmaceutical industry
BP606T6	Summarize the concept of calibration, validation procedures and good warehousing practices
BP607P Medicinal Chemistry III: Practical	
CO ID.	Course Outcome
BP607P.1	Carry out synthesis of different drugs and intermediates.
BP607P.2	Experiment on preparation of different medicinally important compounds by microwave synthesis.
BP607P.3	Sketch the structures and reactions using Chem draw software.
BP607P.4	Determine different physicochemical properties.
BP607P.5	Explain hydrogen bond donors.
BP607P.6	Discuss hydrogen bond acceptors.
BP608P Pharmacology III: Practical	
CO ID.	Course Outcome
BP608P.1	Illustrate antiulcer activity, gastrointestinal motility and effect of agonist and antagonist on guinea pig ileum.
BP608P.2	Explain the various serum biochemical parameters by using semi autoanalyzer
BP608P.3	Know the effect of saline purgative and hypoglycemic effect.
BP608P.4	Describe the acute oral toxicity, skin irritation, eye irritation of given test substance.
BP608P.5	understand the biostastics methods in expermental pharmacology.





BP608P.6	explain the bioassay methods of acetylcholine, serotonin by three point and four-point bioassay method and study the miotics and mydriatic effect on rabbit.
BP609 P Herbal Drug Technology: Practical	
CO ID.	Course Outcome
BP609P.1	Determine various phytochemicals of crude drugs with preliminary screenings.
BP609P.2	Evaluate natural excipients by their physicochemical tests.
BP609P.3	Prepare and evaluate various herbal formulations with standardized extract.
BP609P.4	Prepare and evaluate the formulations as per pharmacopeial requirements
BP609P.5	Carry out analysis of herbal drugs as per pharmacopoeias
BP609P.6	Estimate the alkaloid, phenol and aldehyde content from crude drugs

Final Year B. Pharmacy:	
Seventh Semester	
BP701 Instrumental Methods of Analysis: Theory	
CO ID.	Course Outcome
BP 701 T.1	Discus about UV Visible Spectroscopy and Fluorimeter.
BP 701 T.2	Explain about FTIR.
BP 701 T.4	Illustrate different types of Chromatographic techniques.
BP 701 T.5	Summarise Gas chromatography and HPLC technique.
BP 701 T.6	Justify Ion exchange gel and Gel Chromatography.
BP705T.3	Demonstrate the Flame Photometry, atomic absorption, and Nepheloturbidimerty.
BP702T Industrial Pharmacy II: Theory	
CO ID.	Course Outcome
BP702T. 1	Discuss in detail pilot plant scale up technique in pharmaceutical dosage forms.
BP702T. 2	Explain technology development and transfer in pharmaceutical industry
BP702T. 3	Discuss on regulatory affairs and drug approval system in pharmaceutical industry
BP702T. 4	Describe the approval process and regulatory requirement of drug product.
BP702T. 5	Describe the role and responsibility of regulatory agencies in the approval of drugs
BP702T. 6	Explain quality management system in pharmaceutical industry
BP703T Pharmacy Practice: Theory	
CO ID.	Course Outcome



BP703T.1	Explain various process carried out in hospital and community pharmacy including adverse drug reactions.
BP703T.2	Discuss various skills like drug distribution , drug information medication adherence and therapeutic drug monitoring
BP703T.3	Describe role of pharmacist as counselor in hospital, drug information services, education and training programme in the hospital
BP703T.4	Discuss on about pharmacy and therapeutic committee, prescribed medication order and communication skills
BP703T.5	Discuss the budget preparation its implementation, clinical pharmacy and over the counter sales
BP703T.6	Explain the drug store management its inventory control, investigational use and interpretation of clinical laboratory tests
BP704T Novel Drug Delivery System: Theory	
CO ID.	Course Outcome
BP704T.1	Explain Control Drug Delivery System and Polymers with its different properties , applications, formulations in detail.
BP704T.2	Discuss on Microencapsulation, Mucosal Drug Delivery System and Implantable Drug delivery system in detail.
BP704T.3	Explain Transdermal, Gastroretentive and Naso-pulmonary drug delivery System.
BP704T.4	Describe Targeted Drug delivery System.
BP704T.5	Explain Ocular Drug Delivery System and its application.
BP704T.6	Discuss on Intrauterine Drug Delivery System.
705P Instrumental Methods of Analysis: Practical	
CO ID.	Course Outcome
BP 705 P.1	Determine lambda Max of Various organic compound
BP 705 P.3.	Estimate various organic compound by spectrometric and photometric analysis.
BP 705 P.4	Separate different mixture by different Chromatic technique & demonstrate of diff instruments.
BP705P.2	essay of given compound by using uv and chromatometry
BP705P.5	Demonstrate the HPTLC and FTIR instrument
BP705P.6	interpret organic compound by IR spectrometer

Final Year B. Pharmacy: Eighth Semester	
BP801T Biostatistics & Research Methodology: Theory	
CO ID.	Course Outcome
BP801T1	Explain the term statistics, biostatistics, standard deviation, Frequency distribution, Measures of central tendency, Measures of dispersion and correlation.
BP801T2	Solve regression, probability, Parametric test.
BP801T3	Explain Non Parametric tests, introduction to research, Designing methodology, Sample size determination and Power of a study, Report writing and presentation of data, Protocol.
BP801T4	Discuss the Blocking and confounding system for Two-level factorials Regression modeling, practical components of Industrial and Clinical Trials Problems.
BP801T.5	Interpret factorial design.
BP801T.6	Describe response surface methodology
BP802T Social & Preventive Pharmacy: Theory	
CO ID.	Course Outcome
BP802T.1	Describe sociocultural related to Health, Health education, Hygiene and disease.
BP802T.2	Explain the concept of sociology and its relation with health
BP802T.3	Illustrate various preventive medicine and prevention carryout for control of various diseases.
BP802T.4	Describe various national health program with its objectives, functioning and outcome
BP802T.5	Discuss on national health intervention programs and role of WHO in Indian national program.
BP802T.6	Explain community services in rural, urban and school Health
BP804ET Pharmaceutical Regulatory Science: Theory	
CO ID.	Course Outcome
BP 804.T.1	Illustrate about new drug discovery and development.
BP 804.T.2	Explain the regulatory approval process.
BP 804.T.3	Summarize regulatory authority and agencies.
BP 804.T.4	Elaborate registration of indian drugs product in overseas market.
BP 804.T.5	Describe about clinical trials.
BP 804.T.6	Explain regulatory concept.
BP805ET Pharmacovigilance: Theory	



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Vision – *To serve with high quality education for development of students as competent pharmacy professionals for the upliftment of socio-economic status in rural areas.*

CO ID.	Course Outcome
BP805ET.1	Understand the fundamentals of Pharmacovigilance.
BP805ET.2	Discuss the drug, disease classification, and Pharmacovigilance programme.
BP805ET.3	Discuss the information resources and programme of pharmacovigilance.
BP805ET.4	Understand the importance of safety surveillance, methods of pharmacovigilance and effective communication in different pharmacovigilance sectors.
BP805ET.5	Remember the ICH guidelines for pharmacovigilance and clinical phases.
BP805ET.6	Know the pharmacogenomics of ADR and distinguish the global pharmacovigilance requirements.




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Faculty of Pharmacy
Kashti, Tal-Shrigonda, Dist-A. Nagar



M. Pharmacy
Course Outcome
Academic Year 2023-24

First Year M. Pharmacy
Semester I

MPH101T Modern Pharmaceutical Analytical Techniques: Theory

CO ID.	Course Outcome
MPH 101T.1	Discuss about UV Visible Spectroscopy and Fluorimeter with AAS and flame emission spectroscopy.
MPH 101T.2	Explain about NMR.
MPH 101T.3	Demonstrate the mass spectroscopy.
MPH 101T.4	Illustrate different types of Chromatographic techniques.
MPH 101T.5	Summarise electrophoresis and x-ray chromatography
MPH 101T.6	Justify the thermal chromatograph.

MPH102T Drug Delivery System: Theory

CO ID.	Course Outcome
MPH102T.1	Discuss on sustained release and controlled release
MPH102T.2	Explain rate-controlled drug delivery system
MPH102T.3	Describe gastro-retentive drug delivery system
MPH102T.4	To study ocular drug delivery system
MPH102T.5	Acquire knowledge of transdermal DDS
MPH102T.6	Discuss protein peptide delivery and vaccine delivery system


MPH103T Modern Pharmaceutics: Theory

CO ID.	Course Outcome
MPH103T.1	Study on pre-formulation concepts.
MPH103T.2	Knowledge on pharmaceutical validation
MPH103T.3	Knowledge on cGMP & Industrial Management
MPH103T.4	Knowledge on compression and compaction
MPH103T.5	Knowledge on consolidation parameters
MPH103T.6	Discuss optimization techniques in pharmaceutical formulations

MPH 104 T Regulatory Affair: Theory

CO ID.	Course Outcome
MPH104T.1	Illustrate about Documentation in Pharmaceutical industry.
MPH104T.2	Explain the ANDA regulatory approval process, NDA approval process.
MPH104T.3	Summarize Regulatory requirement for product approval.
MPH104T.4	Elaborate CMC, post approval regulatory affairs
MPH104T.5	Describe about Non clinical drug development.
MPH104T.6	Explain about Clinical trials.




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Faculty of Pharmacy
Kashti, Tal-Shrigonda, Dist-A.Nagar

MPH 105P Pharmaceutics Practical I: Practical

CO ID.	Course Outcome
MPH105P.1	Inspect the simultaneous estimation of Pharmacopoeial compounds by UV Vis spectrophotometer.
MPH105P.2	Perform the experiments based on Chromatography, FTIR and Fluorimetry.
MPH105P.3	Preformulate, formulate and evaluate Sustained release, controlled release, mucoadhesive tablet and transdermal patch
MPH105P.4	Formulate and evaluate osmotically controlled, hydro dynamically balanced drug delivery system.
MPH105P.5	Compare Micromeritics properties of powders and granulation, effect of compressional force, particle size, binders on dissolution of a tablet.
MPH105P.6	Predict the similarity factors by Heckel plot, Higuchi and Peppas Plot.

**M. Pharmacy Second Year
Semester II**

MPH 201T Molecular Pharmaceutics: Theory

CO ID.	Course Outcome
	Explain Targeted Drug Delivery Systems.
MPH201T.2	Discuss Types, preparation and evaluation of Nano Particles and Liposomes
MPH201T.3	Discuss Types, preparation and evaluation of Micro Capsules and Micro Spheres
MPH201T.4	Explain in details Pulmonary Drug Delivery Systems
MPH201T.5	Describe Nucleic acid based therapeutic delivery system.
MPH201T.6	Explain therapeutic antisense molecules and aptamers as drugs of future

MPH202 T Advanced Biopharmaceutics and Pharmacokinetics: Theory

CO ID.	Course Outcome
MPH202T.1	Explain absorption from GIT
MPH202T.2	Discuss on Biopharmaceutical consideration
MPH202T.3	To study Pharmacokinetics
MPH202T.4	To Describe pharmacokinetics
MPH202T.5	To study drug product performance
MPH202T.6	Study application of pharmacokinetics



MPH203T Computer Aided Drug Development: Theory	
CO ID.	Course Outcome
MPH203T.1	explain the history of computers in pharmaceutical research and development
MPH203T.2	describe the computational modeling of drug dispensation
MPH203T.3	demonstrate the computer aided formulation development in pharamcy.
MPH203T.4	elaborate the computer aided biopharmaceutical characteristics.
MPH203T.5	determine the role of computer in clinical development.
MPH203T.6	define and summerize concept of artificial intelligence(AI) and robotics
MPH204T Cosmetic and Cosmeceuticals: Theory	
CO ID.	Course Outcome
MPH204T.1	Describe regulatory provisions relating to manufacturing offences and penalties.
MPH204T.2	Explain different biological aspects related to cosmetics.
MPH204T.3	Describe in detail building blocks for different formulations of cosmetics.
MPH204T.4	Discuss on building blocks for formulation of creams and EU regulations.
MPH204T.5	Explain in detail design of cosmeceutical products.
MPH204T.6	Summarize the formulation challenges of herbal cosmetics
MPH205 T Pharmaceutics Practical -II: Practical	
CO ID.	Course Outcome
MPH205P.1	Inspect the simultaneous estimation of Pharmacopoeial compounds by UV Vis spectrophotometer.
MPH205P.2	Perform the experiments based on Chromatography , FTIR and Fluorimetry.
MPH205P.3	Preformulate, formulate and evaluate Sustained release, controlled release, mucoadhesive tablet and transdermal patch
MPH205P.4	Formulate and Evaluate osmotically controlled, hydro dynamically balanced drug delivery system.
MPH205P.5	Compare Micromeritics properties of powders and granulation, effect of compressional force, particle size, binders on dissolution of a tablet.
MPH205P.6	Predict the similarity factors by Heckel plot, Higuchi and Peppas Plot.

M. Pharmacy Second Year	
Semester III	
MRM301T Research Methodology and Biostatistics: Theory	
CO ID.	Course Outcome
MRM301T.1	Understand some basic concepts of research and its methodologies.
MRM301T.2	Outline the importance of review of literature, study design and apply different strategies to eliminate errors/bias in research study
MRM301T.3	Raise the various statistical methods to solve different types of pharmaceutical problems.
MRM301T.4	Know the history and ethical values in medical research.
MRM301T.5	Recall the CPCSEA guidelines for laboratory animal care.
MRM301T.6	Illustrate the basic principles for medical research combined with medical care.
MPH395 Introduction to Constitution: Theory	
CO ID.	Course Outcome
MPH395.1	To introduce the philosophy of constitution of India to student.
MPH395.2	To discuss the fundamental rights in details.
MPH395.3	Explain in detail acquaint them with their freedoms and responsibilities.
MPH395.4	To understand the directive principle of state policy to the students.
MPH395.5	Understand and remember the fundamental duties of citizen to the students.
MPH395.6	Discuss right and duty of citizen to the student.




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 Faculty of Pharmacy
 Kashti, Tal-Shrigonda, Dist-A.Nagar

**B. Pharmacy CO-PO Mapping of All courses
Academic Year 2023-24**

First Semester											
BP101T Human Anatomy and Physiology I Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP101T.1	3			1		2			1		3
BP101T.2	3	1		1		2		2	2	1	3
BP101T.3	3			2		2		2	2		3
BP101T.4	3	1		2		1		1	2	2	3
BP101T.5	3	2	1	3		2	2	2	1	2	3
BP101T.6	3	1	1	1		2	1	1	2	1	3
Average	3	1.25	1	1.67		1.83	1.5	1.6	1.67	1.5	3
BP102T Pharmaceutical Analysis: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP102T.1	3	3	1	1	1	1		1	1		3
BP102T.2	3	2	2		2						3
BP102T.3	3	2	2		2						3
BP102T.4	3	1	1		1						3
BP102T.5	3	1	2		2						3
BP102T.6	3	1	1	1	1	1		1	1		3
Average	3	1.67	1.5	1	1.5	1		1	1		3
BP103T Pharmaceutics I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP103T.1	3		2			2			2		3
BP103T.2	3			2		2		2	2	1	3
BP103T.3	3	2		2		2		1	2	1	2
BP103T.4	3		1	2		2	1		1	1	3
BP103T.5	3	1		1		1			2		3
BP103T.6	2			2		2		2	2		3
Average	2.83	1.5	1.5	1.8		1.83	1	1.67	1.83	1	2.83
BP104T Pharmaceutical Inorganic Chemistry: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP104T.1	3	2	2	2		2	2	1	2	2	3
BP104T.2	3		2	2		2	2	2	2		3
BP104T.3	3	2	2					2	3	1	3
BP104T.4	2	1		2		2	1	2	1		3
BP104T.5	3	2	2		2			2	2		3
BP104T.6	2	2	1	3		3	2	2	1	2	2
Average	2.67	1.8	1.8	2.25	2	2.25	1.75	1.83	1.83	1.67	2.83
BP105T Communication Skills: Theory											

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP105T.1		3			3	2		3			3
BP105T.2		2	2		3	2		3			3
BP105T.3		2	2		3	2		3			3
BP105T.4		2	2		3	2		2			3
BP105T.5		3			2	2		3			3
BP105T.6		3	2		3	2		3			3
Average		2.5	2		2.83	2		2.83			3
BP106RBT Remedial Biology: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP106RBT.1	3	2	2	2	1	2		2	2	2	3
BP106RBT.2	3	2		2	2	1		2		2	3
BP106RBT.3	3	2	1	2		2		1	2	1	3
Average	3	2	1.5	2	1.5	1.67		1.67	2	1.67	3
BP106RMT Remedial Mathematics: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP106T1	1	1	3	1	1	2	2		2	1	2
BP106T2	1	2	3	2	2	1	2		2	2	3
BP106T3	1		3	3	2	2	2	2	2	1	2
BP106T4	1	1	3	1	2	2	2		2	2	2
BP106T5	1		3	2		2	2	2	2	2	3
Average	1	1.33	3	1.8	1.75	1.8	2	2	2	1.6	2.4
BP107P Human Anatomy and Physiology I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP107P.1	3	2		2		2			2		3
BP107P.2	3	2		1		3		2	2		3
BP107P.3	3	3	2	3		2		3	3	2	3
BP107P.4	3	3	2	2		2		2	2	2	3
BP107P.5	3	2	3	3		3		3	2	2	3
BP107P.6	3	2	2	2		2		2	2	2	3
Average	3	2.33	2.25	2.17		2.33		2.4	2.17	2	3
BP108P Pharmaceutical Analysis: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP108P.1	3	2	2		2	2		1	2	1	3
BP108P.2	3	2	2		1	1		2	1		3
BP108P.3	3	2	2	1	2	1		2	1		3
BP108P.4	3	2	2	1	1	1		2	1		3
BP108P.5	3	1	2	1	1	2		1		1	3
BP108P.6	3	1	2	1	2	1		1	1		3
Average	3	1.67	2	1	1.5	1.33		1.5	1.2	1	3

BP109P Pharmaceutics I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP109P.1	3	2	1	2		2		2	2		3
BP109P.2	3	2		1		2		2	2		3
BP109P.3	3		1	2		1		1	2		3
BP109P.4	3	1		2				2	2	1	3
BP109P.5	3			2		1	1	2	1		3
BP109P.6	3		1	2				2	2	1	3
Average	3	1.67	1	1.83		1.5	1	1.83	1.83	1	3
BP110P Pharmaceutical Inorganic Chemistry: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP110P.1	3	2		1	2		1	2		1	3
BP110P.2	2	2	2	2	2	1	2	2		2	3
BP110P.3	3	1		2	2		2	2		2	3
BP110P.4	3	2	2	2	3		2	2		2	3
BP110P.5	3	2		2	2	2	2	3	2	1	3
BP110P.6	3	3	3	2	2		2	2		2	2
Average	2.83	2	2.33	1.83	2.17	1.5	1.83	2.17	2	1.67	2.83
BP111P Communication Skills: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP111P.1	1	3	3	3	3	2		3			3
BP111P.2	2	3	2	3	3	3		3			3
BP111P.3	1	3	3	2	3	2		3			3
BP111P.4	2	3	3	3	3	2		3			3
BP111P.5	1	3	2	2	3	2		3			3
BP111P.6	2	3	3	3	3	2		3			3
Average	1.5	3	2.67	2.67	3	2.17		3			3

Second Semester											
BP201T Human Anatomy and Physiology II: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP201T.1	3	2	1			1		2	2		3
BP201T.2	3	1	2			1		2	2		3
BP201T.3	3	2	2			2		2	1		3
BP201T.4	3	3	2			2		2	2		3
BP201T.5	3	1	1			2		2	2		3
BP201T.6	3	2	2			1		1	1		3
Average	3	1.83	1.67			1.5		1.83	1.67		3

BP202T Pharmaceutical Organic Chemistry I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP202T.1	2		2			2	3	3		2	3
BP202T.2	3	2					2	2			2
BP202T.3	3	2	2	3		1	2	2		2	3
BP202T.4	3	2		2	2		2	2		2	3
BP202T.5	3	2	3			2	2	2		2	3
BP202T.6	3	2				2	2	2		2	3
Average	2.83	2	2.33	2.5	2	1.75	2.17	2.17		2	2.83
BP203T Biochemistry: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP203T.1	3	2	2		2	2	2	2			3
BP203T.2	3	2	1		1	1	2	2			3
BP203T.3	3	1	2		2	2	1	2			3
BP203T.4	3	2	1		1	2	2	2			3
BP203T.5	3	2	2		2	2	2	2			3
BP203T.6	3	1	1		1	1	1	2			3
Average	3	1.67	1.5		1.5	1.67	1.67	2			3
BP204T Pathophysiology: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP204T.1	3	1	2	2		1	1	2	2		3
BP204T.2	3	1	2	1		1	1	2	2		3
BP204T.3	3	1	2	1		1	1	2	2		3
BP204T.4	3	1	2	1		1	1	2	2		3
BP204T.5	3	1	2	1		1	1	2	2		3
BP204T.6	3	1	2	1		1	1	2	2		3
Average	3	1	2	1.17		1	1	2	2		3
BP205T Computer Applications in Pharmacy: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP205 T1	2	3	3	3	2	3		3	3		3
BP205T2	3	2	2	3	3	2		2	3		3
BP205 T3	2	3	2	2	3	2		2	2		3
BP205 T4	3	2	2	2	3	2		1	2		2
BP205 T5	2	3	2	3	2	2		3	2		2
BP205 T6	2	2	3	3	2	2		2	3		2
Average	2.33	2.5	2.33	2.67	2.5	2.17		2.17	2.5		2.5
BP206T Environmental sciences: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP206T.1	1	2	3		2			1	1	3	2
BP206T.2	1	2	3		2			1	1	3	2

BP206T.3	2	1	2	2	1	1	1	2	2	3	3
BP206T.4	2	1	2	2	1	1	1	2	2	3	3
BP206T.5	2	2	2	1	2	2	2	2	2	3	3
BP206T.6	2	2	2	1	2	2	2	2	2	3	3
Average	1.67	1.67	2.33	1.5	1.67	1.5	1.5	1.67	1.67	3	2.67
BP207P Human Anatomy and Physiology II: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP207P1	3	2	1		3	3		3	2		3
BP207P2	3	3	1		3	3		3	2		3
BP207P3	3	2	1		2	2		2	1		3
BP207P4	3	2	1		2	3		2	1		3
BP207P5	3	3	1		3	3		2	2		3
BP207P6	3	2	1		2	2		3	2		3
Average	3	2.33	1		2.5	2.67		2.5	1.67		3
BP208P Pharmaceutical Organic Chemistry I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP208P.1	3	2		1	2		1	2		2	3
BP208P.2	3	2	2	2	2	1	2	2		1	3
BP208P.3	3	2		2	2		2	2		1	3
BP208P.4	3	2	2	2	2		2	2		1	3
BP208P.5	3	2		2	1		2	2		1	3
BP208P.6	3	2	2	2	2		2	2		1	3
Average	3	2	2	1.83	1.83	1	1.83	2		1.17	3
BP209P Biochemistry: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP209P.1	3	3	2	2	2	3	2	3	2	2	3
BP209P.2	3	2	1	2	3	3	1	3	3	2	2
BP209P.3	3	1	3	3	2	2	2	2	2	3	3
BP209P.4	3	1	2	3	1	2	2	3	2	2	3
BP209P.5	3	2	1	2	3	2	2	2	1	2	3
BP209P.6	3	2	2	1	2	3	3	1	1	2	3
Average	3	1.83	1.83	2.17	2.17	2.5	2	2.33	1.83	2.17	2.83
BP210P Computer Applications in Pharmacy: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP210P1	2	3	3	2	3	2		3		2	3
BP210P2	2	3	2	2	2	2		2		2	3
BP210P3	3	2	3	3	3	3		3		3	2
BP210P4	3	2	3	2	2	3		2		2	3
BP210P5	2	3	2	3	3	2		3		3	2
BP210P6	3	2	3	3	2	3		2		2	3

Average	2.5	2.5	2.67	2.5	2.5	2.5		2.5		2.33	2.67
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Second Year B. Pharmacy											
Third Semester											
BP301.T PHARMACEUTICAL ORGANIC CHEMISTRY II: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP301T.1	3	2	2	2		3	2	3	2	3	3
BP301T.2	3	2	2	2		2	2		2	2	3
BP301T.3	3	1	2	1			1	2	2		2
BP301T.4	3	2	2	2		1	1	1	1	2	3
BP301T.5	3	2	1	2		1	1	1	1	2	3
BP301T.6	3	1	1	2		1	2	1		1	3
Average	3	1.67	1.67	1.83		1.6	1.5	1.6	1.6	2	2.83
BP302T PHYSICAL PHARMACEUTICS – I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP302T.1	3	2	2	2		2		2	2		3
BP302T.2	3	2	2	2		2		1	2		3
BP302T.3	3	1	2	1		2		2	2		3
BP302T.4	3	2	2	2		1		2	2		3
BP302T.5	3	2	2	2		2		2	1		3
BP302T.6	3	2	1	2		2		2	2		3
Average	3	1.83	1.83	1.83		1.83		1.83	1.83		3
BP303T PHARMACEUTICAL MICROBIOLOGY: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP303T.1	3	2	2	3	2	3	1	2	3	2	3
BP303T.2	3	2	1	3		2	2	3	2	3	2
BP303T.3	3	2	2	3		1	2	1	1	2	2
BP303T.4	3	2	1	3	1	2			2	3	3
BP303T.5	3	1	2	3	2	1	2	2	2	2	3
BP303T.6	3	1	2	3		2		2	1	2	2
Average	3	1.67	1.67	3	1.67	1.83	1.75	2	1.83	2.33	2.5
BP304T PHARMACEUTICAL ENGINEERING: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP304T1	3	2	2	2	2	2		2	2	1	3
BP304T2	3	2	2	3	2	2		3	2		3
BP304T3	3	2	1	2	2	1	2	2	2	2	3
BP304T4	3	1	2	1	3	2		2	2		3
BP304T5	3	2	1	2	2	2	2	2	1	2	3

BP304T6	3	1	2	3	2	1		2	2		2
Average	3	1.67	1.67	2.17	2.17	1.67	2	2.17	1.83	1.67	2.83
BP305P PHARMACEUTICAL ORGANIC CHEMISTRY II: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP305P.1	3	2		1	2		1	2		2	3
BP305P.2	3	2		2	2	1	2	2		2	3
BP305P.3	3	1	2	3	2		2	2		2	3
BP305P.4	3	2		2	2		2	2		2	3
BP305P.5	3	2	2	2	2		2	1		2	3
BP305P.6	3	1	2	1	2	2	1	2		2	3
Average	3	1.67	2	1.83	2	1.5	1.67	1.83		2	3
BP306P PHYSICAL PHARMACEUTICS – I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP306P.1	3	2	3	2	2	2		3	2		3
BP306P.2	3	2	2	1	2	1		3	2		3
BP306P.3	3	1	3	2	2	2		2	2		3
BP306P.4	3	2	3	2	1	2		3	2		3
BP306P.5	3	2	2	2	2	2		3	1		3
BP306P.6	3	2	3	2	2	2		3	2		3
Average	3	1.83	2.67	1.83	1.83	1.83		2.83	1.83		3
BP307P PHARMACEUTICAL MICROBIOLOGY: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP307P.1	3	2	2	2	2	2		2	2		3
BP307P.2	3	2	2	2	2	1		2	2		3
BP307P.4	3	2	1	2	2	2		2	2		3
BP307P.3	3	2	2	2	2	2		2	1		3
BP307P.5	3	2	2	2	2	2		2	2		3
BP307P.6	3	1	2	2	1	2		2	2		3
Average	3	1.83	1.83	2	1.83	1.83		2	1.83		3
BP308P PHARMACEUTICAL ENGINEERING: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP308P.1	3	2	3	2	2	2		2	2		3
BP308P.2	2	2	3	2	2	2		2	2		3
BP308P.3	3	2	2	2	3	2		3	2		3
BP308P.4	2	3	1	2	2	1		2	2		3
BP308P.5	3	2	3	3	2	1		3	2		3
BP308P.6	2	3	2	2	2	2		2	3		3
Average	2.5	2.33	2.33	2.17	2.17	1.67		2.33	2.17		3
BP105T Communication Skill: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

BP105T.1		3			3	2		3			3
BP105T.2		2	2		3	2		3			3
BP105T.3		2	2		3	2		3			3
BP105T.4		2	2		3	2		2			3
BP105T.5		3			2	2		3			3
BP105T.6		3	2		3	2		3			3
Average		2.5	2		2.83	2		2.83			3

Second Year B. Pharmacy											
Fourth Semester											
BP401T Pharmaceutical Organic Chemistry III: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP401T.1	3	2	2	1	2		1	2		2	3
BP401T.3	3	2	2	2	2		2	2		2	3
BP401T.5	3	1	2	2	2	1	2	2		1	3
BP401T.6	3	2	1	2	2		2	2	2	2	3
BP401T.2	3	2	2	2	3		2	2		2	3
BP401T.4	3	2	2	2	1	1	2	2		2	3
Average	3	1.83	1.83	1.83	2	1	1.83	2	2	1.83	3
BP402T Medicinal Chemistry I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP402T.1	3	2	1		1	2		1	2	2	3
BP402T.2	3	2	1		1	2		2	2	1	3
BP403T.3	3	2	2		1	1		2	2	1	3
BP404T.4	3	2	2	1	2	1		1	1	1	3
BP402T.5	3	2	2	1	2	1		1	1	1	3
BP402T.6	3	2	2	1	2	1		1	1	1	3
Average	3	2	1.67	1	1.5	1.33		1.33	1.5	1.17	3
BP403T Physical Pharmaceutics II [Theory regular]											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP403T.1	3	2	1	2	2	2		2	2		3
BP403T.2	3	2	2	2	2	1		2	2		3
BP403T.3	3	2	2	2	1	2		2	2		3

BP403T.4	3	1	2	2	2	2		2	2		3
BP403T.5	3	2	2	2	2	2		2	1		3
BP403T.6	3	2	2	1	2	2		2	2		3
Average	3	1.83	1.83	1.83	1.83	1.83		2	1.83		3
BP404T Pharmacology I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP404T.1	3	1		1		2			1		3
BP404T.2	3	2		2		2			2		3
BP404T.3	3	2	2	2			1	2	3		3
BP404T.4	3	1		1		2		2	2		3
BP404T.5	3	2	2	2		1	2	2	3		3
BP404T.6	3	2	1	1		2	2	2	2		3
Average	3	1.67	1.67	1.5		1.8	1.67	2	2.17		3
BP405T Pharmacognosy and Phytochemistry I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP405T.1	3				2	2					3
BP405T.2	3	2		1		2			2	2	3
BP405T.3	3	2		2		2					3
BP405T.4	3	2				2			2		3
BP405T.5	3	2				2			2	1	3
BP405T.6	3					2			2	1	3
Average	3	2		1.5	2	2			2	1.33	3
BP406P Medicinal Chemistry I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP406P.1	3	2	2	1	2	2		2	1	1	3
BP406P.2	3	2	1	1	2	1		1	1	1	3
BP406P.3	3	2	2	1	2	2		1	1	1	3
BP406P.4	3	2	2	2	1	2		1	2	1	3
BP406P.5	3	2	2	2	1	1		2	2	1	3
BP406P.6	3	2	2	1	1	1		2	2	1	3
Average	3	2	1.83	1.33	1.5	1.5		1.5	1.5	1	3
BP407P Physical Pharmaceutics II: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP407P.1	3	2	2	1	2	2		2	2		3
BP407P.2	3	2	2	2	2	1		2	2		3
BP407P.3	3	2	2	2	2	2		1	2		3
BP407P.4	3	2	2	2	1	2		2	2		3
BP407P.5	3	2	2	2	2	2		2	1		3
BP407P.6	3	1	2	2	2	2		2	2		3
Average	3	1.83	2	1.83	1.83	1.83		1.83	1.83		3

BP408P Pharmacology I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP408P.1	3			2		2			2	1	3
BP408P.2	3	2		3		2	2		1	2	3
BP408P.3	3	2	2	2		2	2		1	1	3
BP408P.4	3	1	2	2		1	1		2		3
BP408P.5	3	2	1	2		2	2		2	1	3
BP408P.6	3	1	1	1		1	1		1	1	3
Average	3	1.6	1.5	2		1.67	1.6		1.5	1.2	3

BP 409 P Pharmacognosy and Phytochemistry I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP409P.1	3	2	2		1	2			1		3
BP409P.2	3		2		1	2					3
BP409P.3	3					1					3
BP409P.4	3	2	2		1	2			2	2	3
BP409P.5	3					1					3
BP409P.6	3					1					3
Average	3	2	2		1	1.5			1.5	2	3

Third Year B. Pharmacy											
Fifth Semester											
BP501T Medchem Medicinal Chemistry-II: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP501T.1	2	2		2		2	2	2	2		2
BP501T.2	3	2		2		2	3	2			3
BP501T.3		3	3	3		3	3	3	3		
BP501T.4	3	3	3	3		3	3	3	3		3
BP501T.5	2	2		2		2	2		2		2
BP501T.6	2	3	3	3		3	3	3	3		3
Average	2.4	2.5	3	2.5		2.5	2.67	2.6	2.6		2.6

BP502T Industrial Pharmacy-I: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP502T.1	3	2	2	3		2		2	2		3
BP502T.2	3	2	2	3		2		2	2		3
BP502T.3	3	2	2	3		2		2	1		3
BP502T.4	3	2	2	2		2		2	2		3
BP502T.5	3	2	2	2		2		2	2		3
BP502T.6	3	1	1	2		1		2	2		3
Average	3	1.83	1.83	2.5		1.83		2	1.83		3

BP503.T Pharmacology - II: Theory											
--	--	--	--	--	--	--	--	--	--	--	--

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP503T.1	3	2	2	1		2	2		2		3
BP503T.2	3	2	1	2		1	2		1		3
BP503T.3	3	1	2	2		1	2		1		3
BP503T.4	3	2	1	1		1	1		2		3
BP503T.5	3	1	1	1		2	1		2		3
BP503T.6	3	2	1	2		1	1		2		3
Average	3	1.67	1.33	1.5		1.33	1.5		1.67		3
BP504T Pharmacognosy and Phytochemistry II: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP504T.1	3					2					3
BP504T.2	3	2			2	2			2		3
BP504T.3	3	3	2	3	3	2			2	2	3
BP504T.4	3	3	2	2	2	2			2	2	3
BP504T.5	3	3	2	3	2	2			2		3
BP504T.6	3	2		2							3
Average	3	2.6	2	2.5	2.25	2			2	2	3
BP505T Pharmaceutical Jurisprudence: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP505T.1	3		1	1	1	2	3		3	1	2
BP505T.2	3		1	1	1	2	3	1	3		2
BP505T.3	3	2	2	2		3	3	2	3	2	1
BP505T.4	3	1	1	2	3	2	3	1	3	2	1
BP505T.5	3	2			3	3	3	2	3		2
BP505T.6	3	2	3	2	3	3	3	3	3		3
Average	3	1.75	1.60	1.60	2.20	2.50	3.00	1.80	3.00	1.67	1.83
506 P Industrial Pharmacy-I: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP506P.1	3	2	2	3		2		2	2		3
BP506P.2	3	2	2	2		2		2	1		3
BP506P.3	3	1	2	1		2		2	2		3
BP506P.4	3	3	1	2		2		2	2		3
BP506P.5	3	2	2	2		2		1	2		3
BP506P.6	3	1	2	2		2		2	2		3
Average	3	1.83	1.83	2		2		1.83	1.83		3
BP507 P Pharmacology - II: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP507P.1	3	2	2	3		2	3		2		3
BP507P.2	3	2	2	3		2	3		2		3
BP507P.3	3	2	2	3		2	3		2		3

BP507P.4	3	2	2	3		2	3		2		3
BP507P.5	3	2	2	3		2	3		2		3
BP507P.6	3	2	2	3		2	3		2		3
Average	3	2	2	3		2	3		2		3
BP508P Pharmacognosy and Phytochemistry II: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP508P.1	3	2		2		2			2	2	3
BP508P.2	3	2		2						2	3
BP508P.3	3	2	2	3		2			2	2	3
BP508P.4	3	2		2					2		3
BP508P.5	3			2							3
BP508P.6	3	2	2						2	2	3
Average	3	2	2	2.2		2			2	2	3

Third Year B. Pharmacy											
Sixth Semester											
BP601 T Medicinal Chemistry III: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP601T.1	3	2	1	3		2	1	2	1		3
BP601T.2	2										2
BP601T.3	1	1	2	2		2	2	1	2		1
BP601T.4	3										2
BP601T.5	2	2	1	3		1		2			3
BP601T.6	3	1	2	1		2	1	1	1		2
Average	2.33	1.5	1.5	2.25		1.75	1.33	1.5	1.33		2.17
BP602 T Pharmacology III: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP602T.1	3	2	1	2		1	3		1		3
BP602T.2	3	2	1	1		1	2		1		3
BP602T.3	3	2	1	2		1	2		2		3
BP602T.4	3	2	1	1		1	1		2		3
BP602T.5	3	2	1	1		1	2		2		3
BP602T.6	3	2	1	1		1	1		2		3
Average	3	2	1	1.33		1	1.83		1.67		3
BP603 T Herbal Drug Technology: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP603T1	3	1	1			2			3	2	3
BP603T2	3	1	2			2		1	3	2	3

BP603T3	3	2	1	2		3		1	3	2	3
BP603T4	3	2	2	2		2		2	2	2	3
BP603T5	3	1	2			2		2	2	1	3
BP603T6	3	2	2	2		3		1	2	2	3
Average	3	1.5	1.67	2		2.33		1.4	2.5	1.83	3
BP604T Biopharmaceutics and Pharmacokinetics: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP604T.1	3	2	1			2		2	2		3
BP604T.2	3	2	1			2		1	2		3
BP604T.3	3	2	1			1		2	2		3
BP604T.4	3	1	1			2		2	2		3
BP604T.5	3	2	1			1		1	2		3
BP604T.6	3	1	1			1		2	2		3
Average	3	1.67	1			1.5		1.67	2		3
BP605 T Pharmaceutical Biotechnology: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP605T.1	3	3	2	1	3	3	2	2	3	2	3
BP605T.2	2	2	3	2	2	3	3	3	2	2	2
BP605T.3	3	3	3	3	3	2	3	2	3	3	3
BP605T.4	3	3	3	2	1	3	2	2	3	2	2
BP605T.5	3	2	2	3	2	2	1	1	2	2	3
BP605T.6	3	2	3	2	2	2	2	2	2	3	2
Average	2.83	2.5	2.67	2.17	2.17	2.5	2.17	2	2.5	2.33	2.5
BP606T Quality Assurance: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP606T.1	3	2	2		3	2	2		2		3
BP606T.2	3	2	2	3	3	2	3		3		3
BP606T.3	3	2	3			3		2	2		3
BP606T.4	3	2	2	3		2	2	2	3	2	3
BP606T.5	3	3	3			3	2	3	2		3
BP606T.6	3	2		3		2	3	2	3		3
Average	3	2.17	2.4	3	3	2.33	2.4	2.25	2.5	2	3
BP607 P Medicinal Chemistry III: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP607P.1	3	2	2	2	1	2	1	2	2	2	1
BP607P.2	2	1	1	2		1		1	1	1	3
BP607P.3	1				1						
BP607P.4	2	1	1	1		2	2	1	1	1	3
BP607P.5	1	1		1		1		2	1	2	1
BP607P.6	2	2	1	2	2	1	1	2	1	2	1

Average	1.83	1.4	1.25	1.6	1.33	1.4	1.33	1.6	1.2	1.6	1.8
BP608P Pharmacology III: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP608P.1	3	2	2	2		1	2		2		3
BP608P.2	3	2	2	2		1	2		2		3
BP608P.3	3	2	2	2		1	2		2		3
BP608P.4	3	2	2	2		1	2		2		3
BP608P.5	3	2	2	2		1	2		2		3
BP608P.6	3	2	2	2		1	2		2		3
Average	3	2	2	2		1	2		2		3
BP609 P Herbal Drug Technology: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP609P1	3	2	2			2			2	2	3
BP609P2	3	2	2			2			2	2	3
BP609P3	3	3	2	2		2			3	2	3
BP609P4	3	3	3	2		2			2	2	3
BP609P5	3	2	2	2		2			2	2	3
BP609P6	3	2	2	3		2			2	2	3
Average	3	2.33	2.17	2.25		2			2.17	2	3




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Final Year B. Pharmacy											
Semester VII											
BP701 Instrumental Methods of Analysis: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP701T.1	3	3	3	3		3		3			3
BP701T.2	3	3	3	3		3		3			3
BP705T.3	3	3	3	3		3		3			3
BP701T.4	2	2	1	3		1		2			2
BP701T.5	3	3	3	3		3		3			3
BP701T.6	2	2	2	2		2		2			2
Average	2.7	2.67	2.5	2.83		2.5		2.67			2.67
BP702T Industrial Pharmacy II: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP702T.1	3	2	2	3		2		3	2		3
BP702T.2	3	2	2	3		2		3	2		3
BP702T.3	3	2	2	2		2		3	2		3
BP702T.4	3	3	2	2		2		3	2		3
BP702T.5	3	3	2	2		2		3	2		3
BP702T.6	3	2	2	2		2		3	2		3
Average	3	2.33	2	2.33		2		3	2		3
BP703T Pharmacy Practice: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP703T.1	3		2	2	2	1		2	2		3
BP703T.2	3		2	1	2	2	2	2	2		3
BP703T.3	3	2	2	2	2	2	2	2	1		3
BP703T.4	3		2	2	1	2		2	2		3
BP703T.5	3	2	1	2	2	2		2	2		3
BP703T.6	3	1	2	2	2	2		1	2		3
Average	3		2	2.5	2.83	2.83	2.5	2.33	2.5		3
BP704T Novel Drug Delivery System: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP704T.1	3	2	2	2	2	2		2	2		3
BP704T.2	3	1	1	2	1	2		2	2		3
BP704T.3	3	2	2	2	2	1		2	1		3
BP704T.4	3	2	1	2	1	2		2	2		3
BP704T.5	3	2	2	2	2	2		2	1		3
BP704T.6	3	2	2	1	1	2		1	2		3
Average	3	1.83	1.67	1.83	1.5	1.83		1.83	1.67		3
705P Instrumental Methods of Analysis: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP705P.1	3	2	2	2	2	2		1			3
BP705P.3.	3	2	2	3	2	1		2			3
BP705P.4	3	1	2	1	2	2		1			3



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BP705P.2	3	2	1	2	1	2		2			3
BP705P.5	3	1	2	2	1	2		3			3
BP705P.6	3	1	3	1	2	2		1			3
Average	3	1.5	2	1.83	1.67	1.83		1.67			3

**Final Year B. Pharmacy
Semester VIII**

BP801T Biostatistics & Research Methodology: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP801T1	3	2	2	2	1	2		2			3
BP801T2	3	1	2	2	2	2		2			3
BP801T3	3	2	2	1	2	2		2			3
BP801T4	3	2	2	2	2	1		2			3
BP801T.5	3	2	2	2	2	2		1			3
BP801T.6	3	2	2	2	2	2		2			3
Average	3	1.83	2	1.83	1.83	1.83		1.83			3

BP802T Social & Preventive Pharmacy: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP802T.1	3	2	1		2	3	2	3	2	2	3
BP802T.2	3	1	1		2	2	1	2	1	1	3
BP802T.3	3	2	2	1	3	3	2	3	2	1	3
BP802T.4	3	1	1		2	2	2	2	1	1	3
BP802T.5	3	2	2		2	3	2	2	3	1	3
BP802T.6	3	2	2	1	3	3	3	3	2	2	3
Average	3	1.67	1.5	1	2.33	2.67	2	2.5	1.83	1.33	3

BP804ET Pharmaceutical Regulatory Science: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP804T.1	3	2	2		1	2	2	2	2		3
BP804T.2	3	2	1		2	2	1	2	2		3
BP804T.3	3	1	2		2	2	2	1	2		3
BP804T.4	3	2	2		2	1	2	2	2		3
BP804T.5	3	2	2		2	2	2	1	2		3
BP804T.6	3	2	2		2	2	2	2	1		3
Average	3	1.83	1.83		1.83	1.83	1.83	1.67	1.83		3

BP805ET Pharmacovigilance: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BP805ET.1	3	2	2	1	2	2		2	2		3
BP805ET.2	3	2	2	2	1	2	2	2	2		3
BP805ET.4	3	2	2	2	2	2		1	2		3
BP805ET.5	3	2	2	2	2	1	2	2	1		3
BP805ET.6	3	2	1	2	2	2		2	2		3
BP805ET3	3	1	2	2	2	2		2	2		3
Average	3	1.83	1.83	1.83	1.83	1.83	2	1.83	1.83		3



M. Pharmacy CO-PO Mapping of All courses

Academic Year 2023-24

First Year M. Pharmacy											
Semester First											
MPH101T Modern Pharmaceutical Analytical Techniques: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH101T.1	3	2	2	3	2	2		2			2
MPH101T.2	2	3	2	3	2	2		2			2
MPH101T.4	3	2	3	3	1	3		2			3
MPH101T.5	3	2	2	3	2	2		3			2
MPH101T.6	2	3	3	2	2	2		2			3
MPH101T.3	2	3	2	2	1	3		2			2
Average	2.5	2.5	2.33	2.67	1.67	2.33		2.17			2.33
MPH102T Drug Delivery System: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH102T.1	3	2	2		3	3	1	3	2	2	3
MPH102T.2	2	3	3	2		2	2	2	2	3	2
MPH102T.3	3	2	2	3	1	3	3	2	3	2	3
MPH102T.4	2	3	3	2	2	2	1	3	1	1	3
MPH102T.5	2	3	2	2	3	3	2	2	2	2	3
Average	2.4	2.6	2.4	2.25	2.25	2.6	1.8	2.4	2	2	2.8
MPH 103T Modern Pharmaceutics: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH103T.1	3	2	2	2	1	2		2	2		3
MPH103T.2	3	2	2	2	2	1		2	2		3
MPH103T.3	3	1	2	2	2	2		2	2		3
MPH103T.4	3	2	1	2	1	2		2	2		3
MPH103T.5	3	2	2	2	2	2		2	1		3
MPH103T.6	3	2	2	1	2	2		2	2		3
Average	3	1.83	1.83	1.83	1.67	1.83		2	1.83		3



MPH 104 T Regulatory Affair: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH104T.1	3	3	2	2	2	1	2	2	2	1	3
MPH104T.2	3	3	1	1	2		1	2	2		3
MPH104T.3	3	1	2	2	1	1	2	2	1	2	3
MPH104T.4	3	3	2	2	2		2	2	2		3
MPH104T.5	3	3	2	2	2	1	2	1	2	2	3
MPH104T.6	3	3	3	2	2	2	1	2	2	2	
Average	3	2.67	2	1.83	1.83	1.25	1.67	1.83	1.83	1.75	3

MPH105P Pharmaceutics Practical I: Practical

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH105P.1	3		2		3	2		3	3	3	3
MPH105P.2	2	3	2		2	3		2	2	2	3
MPH105P.3	3		3		3	3		3	1	2	2
MPH105P.4	3	3	3		3	2		2	3	3	3
MPH105P.5	2	2	3		2	3		1	2	3	3
MPH105P.6	3	3	3		2	1		2	3	1	3
Average	2.67	2.75	2.67		2.5	2.33		2.17	2.33	2.33	2.83

M. Pharmacy First Year

Semester Second

MPH 201T Molecular Pharmaceutics: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH201T.1	3	2	2	2	2	1		2	1		3
MPH201T.2	3	2	2	2	1	2		2	2		3
MPH201T.3	3	2	2	2	2	2		1	2		3
MPH201T.4	3	1	2	2	2	2		2	2		3
MPH201T.5	3	2	2	1	2	2		2	2		3
MPH201T.6	3	2	1	2	2	2		2	2		3





Average	3	1.83	1.83	1.83	1.83	1.83		1.83	1.83		3
MPH202T Advanced Biopharmaceutics and Pharmacokinetics: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH202T.1	2	3	3			3		2	3		3
MPH202T.2	3	3	2			3		3	2		3
MPH202T.3	3	3	3			2		1	3		1
MPH202T.4	2	3	3			3		1	3		3
MPH202T.5	2	3	3			2		2	3		3
MPH202T.6	2	3	3			3		2	3		3
Average	2.33	3	2.83			2.67		1.83	2.83		2.67
MPH203T Computer Aided Drug Development: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH203T.1	2	2	2	1	1	2	1				2
MPH203T.2	3	2	3	2	1	3	1				2
MPH203T.3	2	3	2	3	1	3					3
MPH203T.4	2	3	2	3	2	3					3
MPH203T.5	3	2	2	2	2	2	2				3
MPH203T.6	2	2	3	3	2	2	1				3
Average	2.33	2.33	2.33	2.33	1.5	2.5	1.25				2.67
MPH204T Cosmetic and Cosmeceuticals: Theory											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH204T.1	3	1	3		2	3		3	2	3	3
MPH204T.2	2	2	2		3	2		2	3	2	2
MPH204T.3	1	2	3		2	3		2	3	2	1
MPH204T.4	2	3	2		3	2		3	2	3	2
MPH204T.5	3	2	1		2	2		2	2	3	2
MPH204T.6	2	1	2		2	3		3	3	2	3
Average	2.17	1.83	2.17		2.33	2.5		2.5	2.5	2.5	2.17
MPH205P Pharmaceutics Practical -II: Practical											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH205P.1	3	3	3		3	2		3	3	3	2



MPH205P.2	2	2	3		2	3		2	2	2	3
MPH205P.3	2	2	2		3	1		2	2	2	3
MPH205P.4	3	3	2		1	2		3	3	2	3
MPH205P.5	2	3	2		2	2		3	2	2	3
MPH205P.6	2	1	3		3	3		1	3	3	3
Average	2.33	2.33	2.5		2.33	2.17		2.33	2.5	2.33	2.83

M. Pharmacy Second Year

Semester Third

Research Methodology and Biostatistics: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MRM301T.1	3	3	3	2	2	2	2		2		3
MRM301T.2	3	2	2	2	2	2	2	2	2		3
MRM301T.3	3	1	3	3	2	2					3
MRM301T.4	3				2	1			1		3
MRM301T.5	3	2			2	2	2		2	2	3
MRM301T.6	3		1	1		2			1		3
Average	3	2	2.25	2	2	1.83	2	2	1.6	2	3

MPH395 Introduction to Constitution: Theory

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MPH395.1		2	1			2		2	1		3
MPH395.2			1		2	2		1	1		3
MPH395.3		2			2				1		3
MPH395.4		2	1			2		2	1		3
MPH395.5					2			2	1		3
MPH395.6		2	1		2	2		2	1		3
Average		2	1		2	2		1.8	1		3




 PRINCIPAL
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