### Pune District Education Association's

### Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [M Pharm (Pharmaceutics) - 2021-22]

Semes	Semester I	
MPATI	MPAT101T Modern Pharmaceutical Analytical Techniques [Theory   Regular ]	
CO ID.	Course Outcome	
C01	Understand Analytical techniques for identification, Characterization and quantification of drugs	
CO2	To learn theoretical and practical skills of instrument handling and use	
CO3	Know about Structural Elucidation of organic compounds using data of spectroscopic tools such as UV, IR, NMR, Mass spectrometer, HPLC, GC	
MPH 10	2 T Drug Delivery System [ Theory   Regular ]	
CO ID.	Course Outcome	
CO 1	The various approaches for development of novel drug delivery systems	
CO 2	The criteria for selection of drugs and polymers for the development of delivering system	
CO 3	The formulation and evaluation of Novel drug delivery systems	
мрн10	3T Modern Pharmaceutics [ Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Understand the concept and importance of preformulation parameters	
CO2	Have knowledge of optimization techniques and their applications in pharmaceutical industries.	
CO3	Apply the statistical design in the development of different formulations.	
CO4	Know the scope and merits of validation and different types of validation	
CO5	Understand the importance of industrial management principles and GMP Considerations.	
CO6	Know the compression and consolidation parameters for powders and granules in tablet development.	
CO7	Understand the importance of materials management and production management in pharmaceutical industries	
CO8	To know about diffusion, dissolution and pharmacokinetic parameters.	
MPH10	4T Regulatory Affair [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Discuss the concept of innovator and generic drugs, drug development process	
CO2	Develop strategies for improving nasal absorption in the design of nasal drug delivery systems	
CO3	Categorize the preparation of dossiers and their submission to regulatory agencies in different countries	
CO4	Assess the post approval requirements for actives and drug products	
мрн10	5P Pharmaceutics Practical-I (Part-I and II) [ Practical  Regular ]	
CO ID.	Course Outcome	
CO1	Understand how to analyze and estimate the organic compounds and biological by spectroscopic, fluorimetry, flame photometry methods	
CO2	Learn to separate the impurities or mixtures of organic compounds by using column chromatographic, HPLC, and gas chromatography methods	

CO 3	Formulation and Evaluation of Various Drug Delivery Systems.
CO 4	Pre-formulation studies of tablets and graphical analysis of data
Semes	ter III
MRM30	OIT Research Methodology and Biostatistics [Theory   Regular ]
CO ID.	Course Outcome
CO1	Develop the ability to apply the methods while working on a research project work
CO2	Describe the appropriate statistical methods required for a particular research design
CO3	Choose the appropriate research design and develop appropriate research hypothesis for a research project
CO4	Develop a appropriate framework for research studies

PRINCIPAL

PUNE DISTRICT EDUCATION ASSOCIATION'S SETH GOVIND RAGHUNATH SASLE COLLEGE OF PHARMACY, SASWAD TAL. PURANDHAR, DIST, PUNE-412 301

# Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [B Pharmacy - 2021-22]

Semes	Semester II	
BP 206	T Environmental sciences [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Know basics of environment like ecology, ecosystem, food chain, food web and ecological pyramids	
CO2	Know the different natural sources and their conservation to save the environment	
CO3	Know the current problems of environment and how to solve them.	
CO4	Aware about hazards of disposal wastes from hospitals and pharmaceutical industries & role of individual in conservation of natural resources	
BP201	THuman Anatomy and Physiology-II [Theory  Regular]	
CO ID.	Course Outcome	
CO1	Explain the gross morphology, structure and functions of various organs of the human body	
CO2	Describe the various homeostatic mechanisms and their imbalances.	
CO3	Identify the various tissues and organs of different systems of human body.	
CO4	Perform the hematological tests like blood cell counts, haemoglobin estimation, bleeding/clotting time etc. and also record blood pressure, heart rate, pulse and respiratory volume.	
CO5	Appreciate coordinated working pattern of different organs of each system	
CO6	Appreciate the interlinked mechanisms in the maintenance of normal functioning (homeostasis) of human body.	
BP202	T Pharmaceutical Organic Chemistry-I [ Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Understand fundamental concepts of organic chemistry	
CO2	Apply IUPAC nomenclature in naming organic compounds and write structure	
CO3	Write the reaction, name the reaction, mechanism and orientation of reactions and type of isomerism of the organic compound.	
CO4	Account for reactivity/stability of compounds	
CO5	Identify/confirm the identification of organic compounds	
BP203	T Biochemistry [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Understand the catalytic role of enzymes and importance of enzyme in biochemical process.	
CO2	Understand the metabolism of nutrient molecules in physiological and pathological conditions.	
CO3	Understand the genetic organization of mammalian genome and functions of DNA in the synthesis of RNAs and proteins.	
CO4	To discuss the metabolism of nucleic acids, lipids and amino acids	
CO5	Explain the concept of free energy and energy rich compound	
BP204T Pathophysiology [Theory   Regular ]		
CO ID.	Course Outcome	

CO1	Describe Basic principles of Cell injury Adaptation and explain the concept of inflammation and repair
CO2	Describe the etiology and pathogenesis of various disorders pertaining to CVS, respiratory and renal system
CO3	classification, etiology and pathogenesis of cancer pertaining to Hematological, endocrine ,GI and nervous system
CO4	Classify and explain the etiology and pathogenesis of cancer.
CO5	Describe the etiology and pathogenesis of disorders related to bones and joints
CO6	Describe the etiology and pathogenesis of Meningitis, Typhoid, Leprosy, Tuberculosis
CO7	Describe the etiology and pathogenesis of UTI
CO8	Describe the etiology and pathogenesis of AIDS, Syphilis, Gonorrhea.
BP205	PComputer Applications in Pharmacy [ Practical  Regular ]
CO ID.	Course Outcome
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.
CO3	Retrieve the information of a drug and its adverse effects using online tools
CO4	Creating mailing labels Using Label Wizard , generating label in MS WORD
CO5	Create a database in MS Access to store the patient information with the required fields Using MS access and Design a form in MS Access to view, add, delete and modify the patient record in the database
CO6	Generating report and printing the report from patient database and Creating invoice table using – MS Access
CO7	Drug information storage and retrieval using MS Access AND Creating and working with queries in MS Access
CO8	Exporting Tables, Queries, Forms and Reports to web pages and Exporting Tables, Queries, Forms and Reports to XML pages
BP205	T Computer Applications in Pharmacy [Theory   Regular ]
CO ID.	Course Outcome
CO1	Explain the applications of computer in Pharmacy.
CO2	Analyse the different types of databases.
CO3	Create data bases using MS Access, SQL.
CO4	Explain bioinformatics and their impact in vaccine discovery
CO5	Identify the role of computers for data analysis in the field of preclinical development
BP207	P Human Anatomy and Physiology-II [ Practical  Regular ]
CO ID.	Course Outcome
CO1	To recall the physiology of special senses with the help of models, charts and specimens.
CO2	To develop the knowledge on coordinating working of organs of various systems with the help of models, charts and specimens
CO3	To analyze the functions of cranial nerves by various sensory and motor functions.
CO4	To evaluate body temperature and body mass index.
CO5	To determine tidal volume and vital capacity
CO6	To assess the knowledge on family planning devices, pregnancy diagnostic tests, tissues of vital organs and gonads.
BP208P Pharmaceutical Organic Chemistry-I [ Practical   Regular ]	
CO ID.	Course Outcome
CO1	Perform correct use of various equipments & Safety measures in Pharmaceutical Chemistry laboratory.

CO3 Identify/tentifym the identification of organic compounds.  Synthesize different organic compounds and know reaction & Nechanism.  CO5 Communicate effectively the observations and results of an experiment.  B0209P Biochemistry   Practical   Regular    CO6 Course Outcome  CO7 Describe Qualitative analysis of Carbohydrate  CO8 Identification tests for annual constituents & determination of Blood sample, Blood creatmine  CO9 Identification tests for annual constituents & determination of Blood sample, Blood creatmine  CO9 Identification of summ total cholesterol.  CO9 Preparation of furfer solution and measurement of pH  CO6 Determination of salvary amylase activity Study the effect of temperature & effect of substrate concentration on salvary amylaseactivity.  Semester IV  407P Physical Pharmaceutics-II (Practical Regular )  CO7 Course Outcome  CO8 It deals with the various physical and physicochemical properties, and principles involved in dosage forms/formulations  CO9 To interpret the shelf life of a given formulation by accelerated stability studies.  CO9 To make use of derived and flow properties of providers to misure a stable solid formulation.  B0402T Mcdicinal Chemistry I (Theory (Regular )  CO9 Course Outcome  CO1 Understand the chemistry of drugs with respect to their pharmacological activity.  CO2 Understand the chemistry of drugs with respect to their pharmacological activity.  CO3 Know the Structural Activity Relationship (SAR) of different class of drugs.  CO4 Write the chemical synthesis of some drugs.  CO5 Course Outcome  CO2 Course Outcome  CO3 Know the Structural Activity Relationship (SAR) of different class of drugs.  CO4 Course Outcome  CO5 Course Outcome  CO6 Course Outcome  CO7 Course Outcome  CO7 Course Outcome  CO8 Course Outcome  CO9 Course Outcom	CO2	Know different simple laboratory techniques for characterization and purification of organic compounds.
COS Communicate effectively the observations and results of an experiment.  BP299P Biochemistry [Practical   negular]  CO   Course Qualitative analysis of Carbohydrate  CO1 Describe Qualitative analysis of Carbohydrate  CO2 Identification tests for amino acids 8 proteins  CO3 Qualitative analysis of urine for abnormal constituents 8 determination of Blood sample, Blood creatinine  CO4 Determination of serum total cholesterol.  Preparation of buffer solution and measurement of pH  CO5 Preparation of buffer solution and measurement of pH  CO6 Determination of salivary amylase activity Study the effect of temperature 8 effect of substrate concentration on salivary amylaseactivity.  Semester IV  407P Physical Pharmaceutics-II [Practical [Regular]]  CO   Course Outcome    CO1 If deals with the various physical and physicochemical properties, and principles involved in dosage forms/formulations  CO2 To interpret the shelf life of a given formulation by accelerated shallility studies.  CO3 To make use of derived and flow properties of providers to ensure a shable solid formulation.  BP402T Medicinal Chemistry-I [Theory [Regular]]  CO   Course Outcome    CO3 Understand the chemistry of drugs with respect to their pharmacological activity.  Understand the drug metabolic pathways, adverse effect and therapeutic value of Drugs.  CO3 Know the Sincutural Activity Relationship (SAR) of different class of drugs.  CO4   Write the chemical synthesis of some drugs.  BP403T Physical Pharmaceutics I [Theory [Regular]]  CO   Course Outcome    CO3 Course Outcome    CO4   Course Outcome    CO5 Course Outcome    CO6 Course Outcome    CO7 Course Outcome    CO8   Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO9   Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO9   Course Outcome    CO9   Course Outcome    CO9   Understand the pharmacological actions of different categories of drugs.	CO3	Identify/confirm the identification of organic compounds.
BP209F Blochemistry [Practical [Regular]  CO   Course Outcome   CO1   Describe Qualitative analysis of Carbohydrate   CO2   Jenefication tests for anima acids & proteins   CO3   Qualitative analysis of urine for abnormal constituents & determination of Blood sample, Blood creatmine   CO4   Determination of serum total cholesterol,   CO5   Preparation of buffer solution and measurement of pH   CO6   Determination of salivary annylase activity Study the effect of temperature & effect of substrate concentration on salivary annylaseachtrity.  Semester IV   407P Physical Pharmaceutics-II [Practical [Regular]   CO   Course Outcome   CO   It deads with the various physical and physicochemical properties, and principles involved in desage forms/formulations   CO2   To interpret the shelf life of a given formulation by accelerated stability studies.  CO3   To make use of derived and flow properties of powders to ensure a stable solid formulation.  BP4CZT Medicinal Chemistry   [Theory [Regular]   CO   Course Outcome   CO1   Understand the chemistry of drugs with respect to their pharmacological activity.  CO2   Understand the chemistry of drugs with respect to their pharmacological activity.  CO3   Know the Structural Activity (Redatonship (SMI) of different class of drugs.  CO4   Write the chemical synthesis of some drugs.  CO5   Course Outcome   CO6   Course Outcome   CO7   Course Outcome   CO8   Course Outcome   CO9   Course Outcom	CO4	Synthesize different organic compounds and know reaction & Mechanism.
COI Course Outcome  COI Describe Qualitative analysis of Carbohydrate  COI Describe Qualitative analysis of Carbohydrate  COI Identification tests for amina acids & proteins  COI Qualitative analysis of unne for abnormal constituents & determination of Blood sample, Blood creatinine  COI Determination of senim total cholesterol.  COS Preparation of buffer solution and measurement of pH  COG Determination of salivary amylase activity Study the effect of temperature & effect of substrate concentration on salivary amylaseactivity.  Semister IV  4079 Physical Pharmacoutics-II [Practical [Regular]]  COI Course Outcome  COI It deals with the various physical and physicochemical properties, and principles involved in disage forms/formulations  COI To interpret the shelf life of a given formulation by accelerated stability studies.  COI To interpret the shelf life of a given formulation by accelerated stability studies.  COI To interpret the shelf life of a given formulation by accelerated stability studies.  COI To interpret the shelf life of a given formulation by accelerated stability studies.  COI To understand the chemistry-I [Theory [Regular]]  CO Course Outcome  COI Understand the chemistry of drugs with respect to their pharmacological activity.  COI Understand the drug metabolic pathways, adverse effect and therapeutic value of Drugs.  COI Write the chemical synthesis of some drugs.  De403T Physical Pharmacoutics-II [Theory [Regular]]  CO Course Outcome  COI Understand various physicochemical properties of drug molecules in the designing the dosage forms  COI Understand various physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I [Theory [Regular]  CO Course Outcome  COI Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I [Theory [Regular]  COI Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-	CO5	Communicate effectively the observations and results of an experiment.
Describe Qualitative analysis of Carbohydrate   CO2	BP209	P Biochemistry [ Practical   Regular ]
CO2 Identification tests for amino acids & proteins  CO3 Qualitative analysis of urine for abnormal constituents & determination of Blood sample, Blood creatinine  CO4 Determination of serum total cholesterol.  CO5 Preparation of buffer solution and measurement of pH  CO6 Determination of salivary amylase activity Study the effect of temperature & effect of substrate concentration on salivary amylaseactivity.  Semester IV  407PPhysical Pharmaceutics-II [Practical [Regular]]  CO Course Outcome  ID.  C1 It deals with the verious physical and physicochemical properties, and principles involved in dosage forms/formulations  CO2 To interpret the shelf life of a given formulation by accelerated stability studies.  CO3 To make use of derived and flow properties of powders to ensure a stable solid formulation.  BP402T Medicinal Chemistry [Theory [Regular]]  CO4 Course Outcome  ID.  CO5 Course Outcome  ID.  CO6 Course Outcome  ID.  CO7 Understand the chemistry of drugs with respect to their pharmacological activity.  CO8 Understand the ury metabolic pathways, adverse effect and therapeutic value of Drugs.  CO9 Write the chemical synthesis of some drugs.  BP403T Physical Pharmaceutics-II [Theory [Regular]]  CO9 Course Outcome  CO9 Appreciate correlation of pharmacological knowledge in the prevention and treatment of various diseases.  CO9 Observe the effects of drugs on animal by simulated experiments.  CO9 Appreciate correlation of pharmacological knowledge in the prevention and treatment of various diseases.		Course Outcome
CO3 Qualitative analysis of urine for abnormal constituents & determination of Blood sample, Blood creatinine  CO4 Determination of serum total cholesterol.  CO5 Preparation of buffer solution and measurement of pH  CO6 Determination of salivary amylase activity Study the effect of temperature & effect of substrate concentration on salivary amylaseactivity.  Semester IV  40°P Physical Pharmaceutics-II [Practical   Regular ]  CO   Course Outcome   ID.    It deals with the various physical and physicochemical properties, and principles involved in dosage forms/formulations  To interpret the shelf life of a given formulation by accelerated stability studies.  CO3   To make use of derived and flow properties of powders to ensure a stable solid formulation.  BP402T Medicinal Chemistry-II [Theory   Regular ]  CO4   Course Outcome    CO5   Course Outcome    CO6   Understand the chemistry of drugs with respect to their pharmacological activity.  CO7   Understand the drug metabolic pathways, adverse effect and therapeutic value of Drugs.  CO7   Understand the chemical synthesis of some drugs.  Write the chemical synthesis of some drugs.  BP403T Physical Pharmaceutics-III [Theory   Regular ]  CO6   CO7   Course Outcome    CO7   Understand various physicochemical properties of drug molecules in the designing the dosage forms  CO7   Understand various physicochemical properties of drug molecules in the designing the dosage forms  CO8   Know the principles of chemical kinetics & to use them for stability testing and determination of expiry date of formulations  Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacelogy-I [Theory   Regular ]  CO7   Outse Outcome    CO8   Outse Outcome    CO9   Outse Outcome	CO1	Describe Qualitative analysis of Carbohydrate
CO4 Determination of serum total cholesterol.  CO5 Preparation of buffer solution and measurement of pH  CO6 Determination of salivary amylase activity Study the effect of temperature & effect of substrate concentration on salivary amylaseactivity.  Semester IV  407P Physical Pharmaceutics-III [Practical [Regular]]  CO1 It deals with the various physical and physicochemical properties, and principles involved in dosage forms/formulations  CO2 To interpret the shelf life of a given formulation by accelerated stability studies.  CO3 To make use of derived and flow properties of powders to ensure a stable solid formulation.  EP402T Medicinal Chemistry-I [Theory [Regular]]  CO [Course Outcome]  CO1 Understand the chemistry of drugs with respect to their pharmacological activity.  CO2 Understand the chemistry of drugs with respect to their pharmacological activity.  CO3 Know the Structural Activity Relationship (SAR) of different class of drugs.  EP403T Physical Pharmaceutics-II [Theory [Regular]]  CO (Course Outcome]  CO1 Understand various physicochemical properties of drug molecules in the designing the dosage forms  CO2 Know the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations  Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  EP404T Pharmacological [Theory [Regular]]  CO Course Outcome  [D. Course Outcome]  CO3 Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  EP404T Pharmacological Innowledge in the prevention and treatment of various diseases.  CO3 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.	CO2	Identification tests for amino acids & proteins
COS Preparation of buffer solution and measurement of pH  COS Determination of salivary amylase activity Study the effect of temperature & effect of substrate concentration on salivary amylase activity.  Semester IV  407PPhysical Pharmaceutics-III [Practical [Regular ]  CO [ Course Outcome [	CO3	Qualitative analysis of urine for abnormal constituents & determination of Blood sample, Blood creatinine
Determination of salivary amylase activity. Study the effect of temperature & effect of substrate concentration on salivary amylaseactivity.  Semester IV  407P Physical Pharmaceutics-II[ Practical [Regular ]  CO   Course Outcome   ID    ID   CO   It deals with the various physical and physicochemical properties, and principles involved in dosage forms/formulations    CO   To interpret the shelf life of a given formulation by accelerated stability studies.  CO   To make use of derived and flow properties of powders to ensure a stable solid formulation.  BPA02T Medicinal Chemistry-I[ Theory [Regular ]    CO   Course Outcome   ID    CO   Understand the chemistry of drugs with respect to their pharmacological activity.  CO   Understand the drug metabolic pathways, adverse effect and therapeutic value of Drugs.  CO   Know the Structural Activity Relationship (SAR) of different class of drugs.  Write the chemical synthesis of some drugs.  BPA03T Physical Pharmaceutics-II [Theory [Regular ]    CO   Course Outcome   ID    CO   Understand various physicochemical properties of drug molecules in the designing the dosage forms  CO   Understand various physicochemical properties in the formulation development and evaluation of dosage forms.  BPA04T Pharmacology-I[ Theory [Regular ]    CO   Course Outcome   ID    CO   Course Outcome   ID    CO   Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO   Observe the effects of drugs on animal by simulated experiments.  CO   Observe the effects of drugs on animal by simulated experiments.  CO   Observe the effects of drugs on animal by simulated experiments.	CO4	Determination of serum total cholesterol.
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A07P Physical Pharmaceutics-II [Practical [Regular]  CO   Course Outcome    II deals with the various physical and physicochemical properties, and principles involved in dosage forms/formulations    CO2   To interpret the shelf life of a given formulation by accelerated stability studies.    CO3   To make use of derived and flow properties of powders to ensure a stable solid formulation.    BPA02T Medicinal Chemistry-I [Theory [Regular]]    CO4   Course Outcome    ID   Understand the chemistry of drugs with respect to their pharmacological activity.    CO2   Understand the drug metabolic pathways, adverse effect and therapeutic value of Drugs.    Know the Structural Activity Relationship (SAR) of different class of drugs.    CO4   Write the chemical synthesis of some drugs.    BP403T Physical Pharmaceutics-II [Theory [Regular]]    CO5   Course Outcome    CO6   Understand various physicochemical properties of drug molecules in the designing the dosage forms    CO7   Course Outcome    CO8   Endows the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations    CO8   Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.    BP404T Pharmacology-I [Theory [Regular]]    CO6   Course Outcome    CO7   Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.    CO8   Observe the effects of drugs on animal by simulated experiments.    CO9   Observe the effects of drugs on animal by simulated experiments.    CO9   Understand the pharmacological actions of different categories of drugs.	CO6	
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CO4 Write the chemical synthesis of some drugs.  BP403T Physical Pharmaceutics-II [Theory   Regular ]  CO   Course Outcome    CO1 Understand various physicochemical properties of drug molecules in the designing the dosage forms    CO2 Know the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations    CO3 Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I [Theory   Regular ]  CO   Course Outcome    CO1 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	CO2	Understand the drug metabolic pathways, adverse effect and therapeutic value of Drugs.
BP403T Physical Pharmaceutics-II [Theory  Regular]  CO   Course Outcome	CO3	Know the Structural Activity Relationship (SAR) of different class of drugs.
CO Course Outcome  ID.  CO1 Understand various physicochemical properties of drug molecules in the designing the dosage forms  CO2 Know the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations  CO3 Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I [Theory   Regular ]  CO Course Outcome  ID.  CO1 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	CO4	Write the chemical synthesis of some drugs.
ID.  CO1 Understand various physicochemical properties of drug molecules in the designing the dosage forms  CO2 Know the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations  CO3 Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I[Theory Regular]  CO Course Outcome  CO1 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	BP403	T Physical Pharmaceutics-II [Theory   Regular ]
CO2 Know the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations  CO3 Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I [Theory   Regular ]  CO Course Outcome  ID. Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.		Course Outcome
CO3 Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.  BP404T Pharmacology-I [Theory   Regular ]  CO Course Outcome  CO1 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	CO1	Understand various physicochemical properties of drug molecules in the designing the dosage forms
BP404T Pharmacology-I [Theory   Regular ]  CO	CO2	Know the principles of chemical kinetics & to use them for stability testing nad determination of expiry date of formulations
CO Course Outcome  ID.  CO1 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	CO3	Demonstrate use of physicochemical properties in the formulation development and evaluation of dosage forms.
ID.  CO1 Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.  CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	BP404	T Pharmacology-I [ Theory   Regular ]
CO2 Observe the effects of drugs on animal by simulated experiments.  CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.		Course Outcome
CO3 Appreciate correlation of pharmacology with other bio medical sciences.  CO4 Understand the pharmacological actions of different categories of drugs.	CO1	Apply the basic pharmacological knowledge in the prevention and treatment of various diseases.
CO4 Understand the pharmacological actions of different categories of drugs.	CO2	Observe the effects of drugs on animal by simulated experiments.
	CO3	Appreciate correlation of pharmacology with other bio medical sciences.
CO5 Explain the mechanism of action at organ system/sub cellular/macromolecular levels	CO4	Understand the pharmacological actions of different categories of drugs.
	CO5	Explain the mechanism of action at organ system/sub cellular/macromolecular levels

BP405	BP405T Pharmacognosy and Phytochemistry-I [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	To know the techniques in the cultivation and production of crude drugs	
CO2	To know the crude drugs, their uses and chemical nature	
CO3	To know the evaluation techniques for the herbal drugs	
CO4	To carry out the microscopic and morphological evaluation of crude drugs	
BP406	P Medicinal Chemistry-I [ Practical  Regular ]	
CO ID.	Course Outcome	
CO1	Upon completion of the course students shall be able to Synthesize, recrystallize organic compounds.	
CO2	To understand reaction mechanism involved in synthesis of medicinally important organic compounds.	
CO3	Know different purification methods of organic compounds.	
CO4	To know partition coefficient of organic compounds.	
CO5	Communicate effectively the observations and results of an experiments.	
BP408	BP Pharmacognosy and Phytochemistry-I [ Practical  Regular ]	
CO ID.	Course Outcome	
CO1	Able to understand morphology, microscopy and powder characteristics of crude drugs	
CO2	Able to identify unorganized drugs by chemical methods	
CO3	Able to determine the quality of unorganized crude drugs	
CO4	Able to conduct extraction and estimation of different phytoconstituents.	
BP408	P Pharmacology-I [ Practical  Regular ]	
CO ID.	Course Outcome	
CO1	To learn about basic instruments, common laboratory animals used in experimental pharmacology and to organize animal house as per the CPCSEA guidelines.	
CO2	To demonstrate the common laboratory techniques like routes of administration , blood withdrawal, anesthetics and euthanasia used for animal studies	
CO3	To interpret the effects of various drugs on rabbit eye and ciliary motility of frog oesophagus in correlation with humans	
CO4	To analyse the effect of drugs acting as enzyme inducers, skeletal muscle relaxants and affecting locomotor activity in laboratory animals	
CO5	To evaluate the stereotype and anticatatonic activity of drugs in rats/mice	
BPH40	DIT Pharmaceutical Organic Chemistry-III [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Know the structures with numbering of heterocyclic compounds, chemistry, methods of preparation and chemical reactions of five, six membered and fused heterocyclic rings.	
CO2	Understand the methods of preparation and properties of organic compounds.	
CO3	Explain the stereochemical aspects of organic compounds and stereo chemical reactions.	
CO4	Know the medicinal uses and other applications of organic compounds.	
Semes	ster VI	
Herba	Herbal Drug Technology [Theory   Regular ]	

CO ID.	Course Outcome
CO 1	understand raw material as source of herbal drugs from cultivation to herbal drug product
CO 2	know the WHO and ICH guidelines for evaluation of herbal drugs
CO 3	know the herbal cosmetics, natural sweeteners, nutraceuticals
CO 4	appreciate patenting of herbal drugs, GMP .
BP 60	2 T Pharmacology-III [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Understand the mechanism of drug action and its relevance in the treatment of different infectious diseases
CO2	Comprehend the principles of toxicology and treatment of various poisonings and appreciate correlation of pharmacology with related medical sciences.
BP 60	4 T Biopharmaceutics and Pharmacokinetics [ Theory   Regular ]
CO ID.	Course Outcome
CO 1	The basic concepts in bio pharmaceutics and pharmacokinetics.
CO 2	The critical evaluation of biopharmaceutic studies involving drug product equivalency
CO 3	Understand the concept of dissolution and application of in vitro in vivo correlation in drug product development.
BP 60	8 P Pharmacology-III [ Practical  Regular ]
CO ID.	Course Outcome
CO1	to get a basic principles of bioassay, types of bioassay along with advantages and disadvantages and evaluation of various drugs by using in vivo & invitro models with computer simulated methods.
CO2	To study various routes of drug administration & sampling techniques. and know the effect of drugs on frog heart, blood pressure by computer simulation.
CO3	To get a knowledge of the various newer screening methods involved in the drug discovery process as well as various animals used in the drug discovery process.
CO4	students will able to apply proper biostatical method for data interpretation and calculation
BP601	  T Medicinal Chemistry-III [ Theory  Regular ]
CO ID.	Course Outcome
CO 1	The students should be able to understand the importance of drug design and different techniques of drug design and history of drug development
CO2	Know the metabolism, adverse effects and therapeutic value of drugs.
CO3	understand the chemistry and SAR of drug
CO4	Understand the concept of quantitative structure activity relationship (QSAR) in drug design
CO5	Understand the mechanism of action of drugs
BP605	5T Pharmaceutical Biotechnology [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Acquire knowledge in basic principles of genetic engineering and enzyme technology
CO2	Apply the principles of biosensors and protein engineering in Pharmaceutical Industry
COZ	
CO3	Explain the concepts of rDNA technology and its applications

COS   Discuss the principles of fermentation and biotransformation	CO5	Define hybridoma technology and understand hypersensitivity reaction
Describe various blood products, plasma collection and processing of it.  BP606T Quality Assurance [Theory Rogular ]  Course Outcome  Course O	CO6	Knowledge on genetic multiplication and biotransformation
BP606T Quality Assurance [Theory [kagular]  CO   Course Outcome    10.   Course Outcome    10.   Understand the cGMP aspects in a pharmaceutical industry    CO2   Appreciate the importance of documentation    CO3   Understand the scope of quality certifications applicable to pharmaceutical industries    CO4   Understand the responsibilities of QA & QC departments    BP607P Medicinal chemistry-III [Practical [Regular]    CO   Course Outcome    CO1   Upon completion of the course students shall be able to Synthesize, recrystallize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.  CO2   Use microwave in synthesis of medicinal chemistry.  CO3   Draw chemical structures using software    CO4   Determine physicochemical properties of drugs using software    CO5   Communicate effectively the observations and results of an experiment    BP609P inerbal Drug Technology [Practical [Regular]    CO   Course Outcome    CO4   To remember different preliminary phytochemical screening of crude drugs    CO5   To evaluate the various herbal formulations    CO6   To evaluate the various herbal formulations    CO7   To evaluate the various herbal formulations    CO8   To assess the total alkaloid content    Semester VIII    BP60TB Biostatistics and Research Methodology [Theory [Regular]    CO6   Course Outcome    CO7   Course Outcome    CO8   Course Outcome    CO9   Co	C07	Discuss the principles of fermentation its design and production of pharmaceutical products.
CO   Course Outcome   CO1	CO8	Describe various blood products, plasma collection and processing of it.
Do.   Understand the cGMP aspects in a pharmaceutical industry	BP606	T Quality Assurance [Theory   Regular]
CO2 Appreciate the importance of documentation  CO3 Understand the scope of quality certifications applicable to pharmaceutical industries  CO4 Understand the responsibilities of QA & QC departments  BP607P Medicinal chemistry-III [Practical [Regular ]  CO   Course Outcome   ID   Upon completion of the course students shall be able to Synthesize, recrystallize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.  CO2   Use microwave in synthesis of medicinal chemistry.  CO3   Draw chemical structures using software   CO4   Determine physicochemical properties of drugs using software   CO5   Communicate effectively the observations and results of an experiment   BP609P Horbal Drug Technology [Practical [Regular]   CO6   Communicate effectively the observations and results of an experiment   BP609P Horbal Drug Technology [Practical [Regular]   CO6   Communicate effectively the observations and results of an experiment   BP609P Horbal Drug Technology [Practical [Regular]   CO7   Covaluate the various herbal formulations   CO8   To evaluate the various herbal formulations   CO9   To evaluate parameters such as addehyde and phenol contents   CO9   To evaluate parameters such as addehyde and phenol contents   CO9   To evaluate parameters such as addehyde and phenol contents   CO9   Course Outcome   CO9   Course Outcome   CO9   Course Outcome   CO9   Operate various statistical methods to solve different types of problems   CO9   Operate various statistical software packages   CO9   Appreciate the statistical software packages   CO9   Appreciate the statistical software packages   CO9   Appreciate the statistical software packages   CO9   Operate outcome   CO9   Operate various statistical technique in solving the pharmaceutical problems within the country and worldwide.   CO9   Develop a critical way of thinking based on current health care development.		Course Outcome
CO3 Understand the scope of quality certifications applicable to pharmaceutical industries  CO4 Understand the responsibilities of QA & QC departments  BP607P Medicinal chemistry-III[Practical [Rogulor]  CO   Course Outcome    ID.   Upon completion of the course students shall be able to Synthesize, recrystallize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.  CO2   Use microwave in synthesis of medicinal chemistry.  CO3   Draw chemical structures using software    CO4   Determine physicochemical properties of drugs using software    CO5   Communicate effectively the observations and results of an experiment    BP609P Herbol Drug Technology [Practical [Regular]]    CO6   Course Outcome    CO7   To remember different preliminary phytochemical screening of crude drugs    CO8   To availuate brandular properties of herbol drugs as per pharmacopoeias    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To availuate parameters such as aldehyde and phenol contents    CO9   To av	CO1	Understand the cGMP aspects in a pharmaceutical industry
CO4 Understand the responsibilities of QA & QC departments BP607P Medicinal chemistry-III [Practical [Regular ]  CO Course Outcome ID.  CO1 Upon completion of the course students shall be able to Synthesize, recrystallize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.  CO2 Use microwave in synthesis of medicinal chemistry.  CO3 Draw chemical structures using software  CO4 Determine physicochemical properties of drugs using software  CO5 Communicate effectively the observations and results of an experiment BP609P Herbal Drug Technology [Practical [Regular ]  CO Course Outcome ID.  CO1 To remember different preliminary phytochemical screening of crude drugs  CO2 To evaluate the various herbal formulations  CO3 To apply monographic analysis of herbal drugs as per pharmacopoeias  CO4 To evaluate parameters such as aldehyde and phenol contents  CO5 To assess the total alkaloid content  Semester VIII  BP801T Biostatistics and Research Methodology [Theory [Regular ]  CO Course Outcome  ID.  CO 1 Know the various statistical software packages  CO3 Appreciate the importance of Computer in hospital and Community Pharmacy  CO4 Appreciate the importance of Computer in hospital and Community Pharmacy  CO5 Operate various statistical software packages  CO6 Operate various statistical technique in solving the pharmaceutical problems  DP902T Social and Preventive Pharmacy [Theory [Regular ]  CO6 Course Outcome  ID.  CO7 Course Outcome  ID.  CO8 Develop a critical way of thinking based on current health care development.	CO2	Appreciate the importance of documentation
BP607P Medicinal chemistry-III [Practical  Regular]  CO Course Outcome  ID.  Upon completion of the course students shall be able to Synthesize, recrystalize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.  CO2 Use microwave in synthesis of medicinal chemistry.  CO3 Draw chemical structures using software  CO4 Determine physicochemical properties of drugs using software  CO5 Communicate effectively the observations and results of an experiment  BP603P Herbal Drug Technology [Practical  Regular]]  CO Course Outcome  ID.  CO1 To remember different preliminary phytochemical screening of crude drugs  CO2 To evaluate the various herbal formulations  CO3 To apply monographic analysis of herbal drugs as per pharmacopoeias  CO4 To evaluate parameters such as aldehyde and phenol contents  CO5 To assess the total alikaloid content  Semester VIII  BP801T Biostatistics and Research Methodology [Theory  Regular]  CO Course Outcome  ID.  CO 1 Know the various statistical methods to solve different types of problems  CO2 Operate various statistical software packages  CO3 Appreciate the importance of Computer in hospital and Community Pharmacy  CO4 Appreciate the statistical technique in solving the pharmaceutical problems  BP800T Social and Preventive Pharmacy [Theory  Regular]  CO Course Outcome  ID.  CO Lourse Ou	CO3	Understand the scope of quality certifications applicable to pharmaceutical industries
CO Course Outcome  1D.  CO1 Upon completion of the course students shall be able to Synthesize, recrystallize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.  CO2 Use microwave in synthesis of medicinal chemistry.  CO3 Draw chemical structures using software  CO4 Determine physicochemical properties of drugs using software  CO5 Communicate effectively the observations and results of an experiment  BP609P Herbail Drug Technology [ Practical   Ragular ]  CO Course Outcome  ID.  CO1 To remember different preliminary phytochemical screening of crude drugs  CO2 To evaluate the various herbal formulations  CO3 To apply monographic analysis of herbal drugs as per pharmacopoeias  CO4 To evaluate parameters such as aldehyde and phenol contents  CO5 To assess the total alkaloid content  Semester VIII  BP60IT Biostatistics and Research Methodology [ Theory  Regular ]  CO6 Course Outcome  CO7 Operate various statistical methods to solve different types of problems  CO8 Operate various statistical software packages  CO9 Appreciate the importance of Computer in hospital and Community Pharmacy  CO9 Appreciate the statistical technique in solving the pharmaceutical problems  BP602T Social and Preventive Pharmacy [ Theory  Regular ]  CO Course Outcome  DO Course Outcome	CO4	Understand the responsibilities of QA & QC departments
D_   Upon completion of the course students shall be able to Synthesize, recrystallize and understand reaction mechanisms involved in synthesis of medicinally important organic compounds.    CO2	BP607	P Medicinal chemistry-III [ Practical  Regular ]
synthesis of medicinally important organic compounds.  CO2 Use microwave in synthesis of medicinal chemistry.  CO3 Draw chemical structures using software  CO4 Determine physicochemical properties of drugs using software  CO5 Communicate effectively the observations and results of an experiment  BP609P Herbal Drug Technology [Practical  Regular ]  CO Course Outcome  ID.  CO1 To remember different preliminary phytochemical screening of crude drugs  CO2 To evaluate the various herbal formulations  CO3 To apply monographic analysis of herbal drugs as per pharmacopoeias  CO4 To evaluate parameters such as aldehyde and phenol contents  CO5 To assess the total alkaloid content  Semester VIII  BP801T Biostatistics and Research Methodology [Theory  Regular ]  CO Course Outcome  ID.  CO1 Know the various statistical methods to solve different types of problems  CO2 Operate various statistical software packages  CO3 Appreciate the importance of Computer in hospital and Community Pharmacy  CO4 Appreciate the statistical technique in solving the pharmaceutical problems  BP802T Social and Preventive Pharmacy [Theory  Regular ]  CO Course Outcome  ID.  CO1 Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.  CO2 Develop a critical way of thinking based on current health care development.		Course Outcome
Draw chemical structures using software  CO4 Determine physicochemical properties of drugs using software  CO5 Communicate effectively the observations and results of an experiment  BP609P Herbal Drug Technology [Practical [Regular ]  CO   Course Outcome    ID   CO1 To remember different preliminary phytochemical screening of crude drugs  CO2 To evaluate the various herbal formulations  CO3 To apply monographic analysis of herbal drugs as per pharmacopoeias  CO4 To evaluate parameters such as aldehyde and phenol contents  CO5 To assess the total alkaloid content  Semester Vill  BP80TT Biostatistics and Research Methodology [Theory [Regular ]  CO   Course Outcome  CO1 Know the various statistical methods to solve different types of problems  CO2 Operate various statistical methods to solve different types of problems  CO3 Appreciate the importance of Computer in hospital and Community Pharmacy  CO4 Appreciate the statistical technique in solving the pharmaceutical problems  BP802T Social and Preventive Pharmacy [Theory [Regular ]  CO Course Outcome  CO Course Outcome  CO Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.  CO2 Develop a critical way of thinking based on current health care development.	CO1	
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CO5 To assess the total alkaloid content  Semester VIII  BP801T Biostatistics and Research Methodology [Theory [Regular]]  CO Course Outcome  ID.  CO I Know the various statistical methods to solve different types of problems  CO 2 Operate various statistical software packages  CO 3 Appreciate the importance of Computer in hospital and Community Pharmacy  CO 4 Appreciate the statistical technique in solving the pharmaceutical problems  BP802T Social and Preventive Pharmacy [Theory [Regular]]  CO Course Outcome  ID.  CO Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.  CO2 Develop a critical way of thinking based on current health care development.	CO3	To apply monographic analysis of herbal drugs as per pharmacopoeias
Semester VIII  BP80IT Biostatistics and Research Methodology [Theory   Regular ]  CO   Course Outcome   ID.   CO   Know the various statistical methods to solve different types of problems   CO 2   Operate various statistical software packages   CO 3   Appreciate the importance of Computer in hospital and Community Pharmacy   CO 4   Appreciate the statistical technique in solving the pharmaceutical problems   BP802T Social and Preventive Pharmacy [Theory   Regular ]   CO   Course Outcome   ID.   CO   Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.   CO2   Develop a critical way of thinking based on current health care development.	CO4	To evaluate parameters such as aldehyde and phenol contents
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CO 3 Appreciate the importance of Computer in hospital and Community Pharmacy  CO 4 Appreciate the statistical technique in solving the pharmaceutical problems  BP802T Social and Preventive Pharmacy [Theory   Regular ]  CO   Course Outcome  ID.	CO 1	Know the various statistical methods to solve different types of problems
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BP802T Social and Preventive Pharmacy [Theory   Regular ]  CO Course Outcome  ID. CO1 Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.  CO2 Develop a critical way of thinking based on current health care development.	CO 3	Appreciate the importance of Computer in hospital and Community Pharmacy
CO Course Outcome  ID.  CO1 Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.  CO2 Develop a critical way of thinking based on current health care development.	CO 4	Appreciate the statistical technique in solving the pharmaceutical problems
CO1 Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.  CO2 Develop a critical way of thinking based on current health care development.	BP802	T Social and Preventive Pharmacy [Theory   Regular ]
CO2 Develop a critical way of thinking based on current health care development.		Course Outcome
	CO1	Acquire high consciousness of current issues related to health and Pharmaceutical problems within the country and worldwide.
CO3 Evaluate alternative ways of solving problems related to health and pharmaceutical issues	CO2	Develop a critical way of thinking based on current health care development.
	CO3	Evaluate alternative ways of solving problems related to health and pharmaceutical issues

BP809	PET Cosmetic Science [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Understand the concepts of cosmetics; anatomy of skin v/s hair, general excipients used in cosmetics
CO2	Explain the concept of cosmeceuticals, history, difference between cosmetics & cosmeceuticals & cosmeceuticals agents
CO3	Know different herbs used in cosmetics
CO4	Understand the cosmetics evaluation
CO5	Explain cosmetic problems of different body parts
BP8118	ET Advanced Instrumentation Techniques [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Explain the principle of the advanced instrumental analysis
CO2	Explain the instrumentation of analytical techniques
CO3	Explain the importance techniques and methods for the calibration of various analytical instruments
CO4	Explain techniques for the analysis of drugs using various analytical instruments.



### Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [B Pharmacy - 2021-22]

Semes	ster I		
Comm	Communication skills [Theory   Regular ]		
CO ID.	Course Outcome		
CO1	Employ effective communication techniques including verbal and nonverbal communication		
CO2	To acquaint and familiarise the students with soft skills to present ideas effectively and efficiently.		
CO3	To equip the students with social skills with an emphasis on active learning.		
CO4	To revise and reinforce the learning of soft skills to enhance employability skills and Interpersonal skills.		
CO5	To build self confidence and enhance leadership qualities with stress management and Time management skills		
Reme	dial Biology [Theory   Elective ]		
CO ID.	Course Outcome		
CO 1	Explain about the kingdom living organisms and salient features		
CO 2	Explain about the morphology and general anatomy of the flowering plants		
CO 3	Describe the concepts of plant and mineral nutrition		
CO 4	Explain the plant tissues, respiration and photosynthesi		
CO 5	Describe the digestive, respiratory, excretory and reproductive systems of humans		
Comm	nunication skills [ Practical  Regular ]		
CO ID.	Course Outcome		
CO1	To develop Linguistic Competence and enhance the skill of using English for day to day communication.		
CO2	To familiarise the students with various components of Language .		
CO5	To acquire Language skills and to develop competence in using English Language.		
CO3	To develop interest among the students to interact in English for exposure of speaking English.		
CO4	To acquire grammatical knowledge and to develop skills around human communication.		
CO6	To enhance communication skills and speaking skills with life skills and life values		
BP1017	「Human Anatomy and Physiology-I [ Theory  Regular ]		
CO ID.	Course Outcome		
CO1	Explain the gross morphology, structure and functions of various organs of the human body.		
CO2	Describe the various homeostatic mechanisms and their imbalances.		
CO3	Identify the various tissues and organs of different systems of human body.		
CO4	Perform the various experiments related to special senses and nervous system.		
CO5	Appreciate coordinated working pattern of different organs of each system		
BP103T Pharmaceutics-I [Theory   Regular ]			
CO ID.	Course Outcome		

co 1	Know the history of profession of pharmacy
co 2	Understand the basics of different dosage forms, pharmaceutical incompatibilities and pharmaceutical calculations
со 3	Understand the professional way of handling the prescription
co 4	Preparation of various conventional dosage forms
BP104	T Pharmaceutical Analysis I [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Explain the various methods of expressing concentration and requirement of primary standards & Describe the preparation and standardization of different reagents used in volumetric analysis
CO2	Carry out various volumetric and electrochemical titrations
CO3	Develop analytical skills.
CO4	Learning this subject content will develop the ideas with the fundamental of analytical chemistry among the pupil
CO5	Explain the principle of conductometry and potentiometry & Describe the principle of polarography and different electrodes used in polarography.
CO6	Describe the principle of complexometric and gravimetric estimation with examples.
BP104	T Pharmaceutical Inorganic Chemistry [Theory   Regular ]
CO ID.	Course Outcome
CO1	Well-acquainted with the principles of limit tests
CO2	Familiar with different classes of inorganic pharmaceuticals and their analysis
CO3	Understand the medicinal and pharmaceutical importance of inorganic compounds
CO4	Knowledge about the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals
BP104	T Pharmaceutical Analysis-I [ Practical   Regular ]
CO ID.	Course Outcome
CO1	Explain the principle of acid base, nonaqueous and precipitation titration with examples
CO2	Carry out various volumetric and electrochemical titrations
CO3	Develop analytical skills.
CO4	Learning this subject content will develop the ideas with the fundamental of analytical chemistry among the pupil
CO5	Explain the principle of conductometry and potentiometry & Describe the principle of polarography and different electrodes used in polarography.
CO6	Describe the principle of complexometric and gravimetric estimation with examples.
BP106	Remedial Mathematics [Theory   Elective ]
CO ID.	Course Outcome
CO1	Apply mathematical concepts and principles to perform computations for Pharmaceutical Sciences.
CO2	Create, use and analyze mathematical representations and mathematical relationships.
CO3	Communicate mathematical knowledge and understanding to help in the field of Clinical Pharmacy .
CO4	Perform abstract mathematical reasoning.
BP107P Human Anatomy and Physiology-I [ Practical   Regular ]	
CO ID.	Course Outcome
CO1	To recall handling of compound microscope and to memorize various animal tissue

CO3 To organize the structure and functions of skin, bones and joints of human body CO4 To analyze the importance of blood, lymphatic system and immunity in human body. CO5 To dath the anatomy and physiology of heart and blood vessels.  BPIO3P Pharmaceutics! [Practical [Regular] CO1 Understand formulation and evaluation of Pharmaceutical solution CO2 Understand formulation and evaluation of Pharmaceutical dispersed system CO3 Understand formulation and evaluation of pharmaceutical dispersed system CO4 Understand formulation and evaluation of pharmaceutical phates CO5 Understand formulation and evaluation of pharmaceutical phates CO5 Understand formulation and evaluation of pharmaceutical phates CO5 Understand formulation and evaluation of pharmaceutical phates CO6 Understand formulation and evaluation of pharmaceutical phates CO6 Understand formulation and evaluation of pharmaceutical phates CO7 Understand formulation and evaluation of pharmaceutical Regular [ CO6 Understand formulation and evaluation of pharmaceutical Regular [ CO7 Understand formulation and evaluation of pharmaceutical Regular [ CO8 Understand formulation of pharmaceutical Regular [ CO9 Understand formulation test for few organic compound. CO9 Understand formulation test few organic compound. CO9 Understand formulation test few organic compound. CO9 Understand formulation for scall different techniques of stenilization. CO9 Understand various staining methods - simple, gram staining and acid feet staining CO9 To demonstrate the stenility testing CO9 Understand various melecular representations and their interconversions. CO9 Understand various melecular representations and their interconversions. CO9 Understand vario	CO2	To summarize the characteristics of different types of tissues and their location in various organs
COS To adapt the anatomy and physiology of heart and blood vessels.  BPIOSP Pharmaceutics! [Practical [Regular ]  CO   Course Outcome    CO   Understand formulation and evaluation of Pharmaceutical solution  CO   Understand formulation and evaluation of Pharmaceutical dispersed system  CO   Understand formulation and evaluation of pharmaceutical powders  CO   Understand formulation and evaluation of semisolid disage form  BPIOP Pharmaceutical Inorganic Chemistry [Practical [Regular]]  CO   Course Outcome    CO   Know the source of impurities and determine the impurities in in organic compound.  CO   Know the identification test for few organic compound.  CO   Know the identification test for few organic compound.  CO   To test the impurities of few organic compound.  CO   To know the preparation of inorganic pharmaceuticals.  Semester III  BP 307 P Pharmaceutical Microbiology [Practical [Regular]]  CO   Course Outcome    CO   Course Outcome    CO   To demonstrate techniques of sterilization.  CO   To demonstrate various staining methods - simple, gram staining and acid fast staining  CO   To demonstrate biochemical seasy of antibiotics  CO   To demonstrate the sterility testing  CO   To demonstrate the sterility testing  CO   To demonstrate biochemical test  BP30TT Pharmaceutical Organic Chemistry-II [Theory [Regular]]  CO   Understand various molecular representations and their interconversions.  CO   Understand various molecular representations and their interconversions.  CO   Understand various molecular representations and their interconversions.  CO   Understand various molecular representations and orientation of reactions  CO   Vive the structure, name the reaction and the type of isomenism of the organic compound.  CO   Vive the structure, name the reaction, mechanism and orientation of reactions  CO   Vive the structure, name the reaction, mechanism and orientation of reactions  CO   Vive the structure, name the reaction, mechanism and orientation of reactions	CO3	To organize the structure and functions of skin, bones and joints of human body
BPIOSP Pharmaceutics   [Practical   Regular   CO   Course Outcome [D.   Course Outcome [D.   Course Outcome [D.   Understand formulation and evaluation of Pharmaceutical solution CO 2 Understand formulation and evaluation of pharmaceutical dispersed system CO 3 Understand formulation and evaluation of semisolid dosage form BPIODP Pharmaceutical Inorganic Chemistry [Practical   Regular   CO   Course Outcome [D.   Course Outcom	CO4	To analyze the importance of blood, lymphatic system and immunity in human body.
CO   Course Outcome   CO   Understand formulation and evaluation of Pharmaceutical solution   CO   Understand formulation and evaluation of Pharmaceutical Jonders   CO   Understand formulation and evaluation of pharmaceutical powders   CO   Understand formulation and evaluation of pharmaceutical powders   CO   Understand formulation and evaluation of semisolid disagree form   BPIDP Pharmaceutical Inorganic Chemistry [Practical [Regular]]   CO   Course Outcome   CO   Know the source of impurities and determine the impurities in in organic compound.   CO   Know the identification test for few organic compound.   CO   To know the identification test for few organic compound.   CO   To know the preparation of inorganic pharmaceuticals.   Semester III   BP 307 P Pharmaceutical Microbiology [Practical [Ragular]]   CO   Course Outcome   CO   Course Outcome   CO   To recall different techniques of sterilization.   CO   To demonstrate various staning methods - simple, gram staning and acid fast staning   CO   To demonstrate Staining methods and culture methods   CO   To demonstrate the sterility testing   CO   To demonstrate the bacteriological analysis of water   CO   To demonstrate the bacteriological analysis of water   CO   To demonstrate the bacteriological analysis of water   CO   Course Outcome   CO   Write the structure, name the reaction and their interconversions.   CO   Write the structure, name the reaction and the type of isomerism of the organic compound.   CO   Write the reaction, name the reaction, mechanism and orientation of reactions   CO   Write the reaction, name the reaction, mechanism and orientation of reactions   BP3007 Physical Pharmaceutics - [Theory   Regular ]   CO   Course Outcome   CO	CO5	To adapt the anatomy and physiology of heart and blood vessels.
ID.   Understand formulation and evaluation of Pharmaceutical solution   Understand formulation and evaluation of Pharmaceutical dispersed system	BP109	P Pharmaceutics-I [ Practical  Regular ]
Understand formulation and evaluation of Pharmaceutical dispersed system  10 Juderstand formulation and evaluation of pharmaceutical powders  10 Understand formulation and evaluation of semisolid dosage form  10 Department of Course Outcome  10 Course Outcome  10 Course Outcome  10 Know the source of impurities and determine the impurities in in organic compound.  10 Know the identification test for few organic compound.  10 To test the impurities of few organic compound.  10 To test the impurities of few organic compound.  10 To know the preparation of inorganic pharmaceuticals.  10 Semester III  11 BP 307 P Pharmaceutical Microbiology [Practical [Regular]]  12 Course Outcome  13 To recal different techniques of sterilization.  14 To demonstrate various staining methods - simple, gram staining and acid fast staining  15 To interpret the results of microbial testing.  16 Microbiolofical assay of antibiotics  17 demonstrate base sterility testing  18 To demonstrate the sterility testing  18 To demonstrate the sterility testing  19 To demonstrate the sterility testing  19 To demonstrate the sterility testing  19 To demonstrate the sterility testing  10 Understand various molecular representations and their interconversions.  19 Understand various molecular representations and their interconversions.  20 Write the structure, name the reaction and the type of isomerism of the organic compound.  20 Write the reaction, name the reaction, mechanism and orientation of reactions  20 Pepare small organic compounds  20 Course Outcome  20 Course Outcome		Course Outcome
Understand formulation and evaluation of pharmaceutical powders  CO 4 Understand formulation and evaluation of semisolid dosage form  BPTIOP Pharmaceutical Inorganic Chemistry [Practical [Regular]]  CO Course Outcome  ID. Course Outcome  CO1 Know the source of impurities and determine the impurities in in organic compound.  CO2 Know the identification test foe few organic compound.  CO3 To test the impurities of few organic compound.  CO4 To know the preparation of inorganic pharmaceuticals.  Semester III  BP307 P Pharmaceutical Microbiology [Practical [Regular]]  CO Course Outcome  ID. Course Outcome  CO1 To recall different techniques of sterilization.  CO2 To demonstrate various staining methods - simple, gram staining and acid fast staining  CO3 To interpret the results of microbial testing.  CO4 To demonstrate Staining methods and culture methods  CO5 Microbiolofical assay of antibiotics  CO6 To demonstrate the sterility testing  CO7 To demonstrate the sterility testing  CO7 To demonstrate the sterility testing  CO8 To demonstrate the sterility testing  CO9 T	CO 1	Understand formulation and evaluation of Pharmaceutical solution
Deptide the source of impurities and evaluation of semisolid dosage form  BPIDOP Pharmaceutical Inorganic Chemistry [Practical   Ragular ]  CO   Course Outcome	CO 2	Understand formulation and evaluation of Pharmaceutical dispersed system
BPTIOP Pharmaceutical Inorganic Chemistry [Practical  Regular ]  CO   Course Outcome   ID.    COL   Know the source of impurities and determine the impurities in in organic compound.  COL   Know the identification test foe few organic compound.  COL   To test the impurities of few organic compound.  COL   To know the preparation of inorganic pharmaceuticals.  Semester III   BP 307 P Pharmaceutical Microbiology [Practical  Regular ]  COL   Course Outcome   ID.    COL   To recall different techniques of sterilization.  COL   To demonstrate various staining methods - simple, gram staining and acid fast staining  COL   To demonstrate various staining methods - simple, gram staining and acid fast staining  COL   To demonstrate Staining methods and culture methods  COL   To demonstrate Staining methods and culture methods  COL   To demonstrate the sterillity testing  COL   To demonstrate the sterillity testing  COL   To demonstrate the bacteriological analysis of water  COL   To demonstrate the bacteriological analysis of water  COL   Course Outcome   ID.    COL   Course Outcome   ID.    COL   Write the structure, name the reaction and their interconversions.  COL   Write the reactivity/stability of compounds  BP302T Physical Pharmaceutics-I [Theory [Regular ]  COL   Ourse Outcome   ID.    COL   Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory [Regular ]  COL   Course Outcome   ID.    COL   Course Outcome	CO 3	Understand formulation and evaluation of pharmaceutical powders
CO Course Outcome  ID.  CO1 Know the source of impurities and determine the impurities in in organic compound.  CO2 Know the identification test foe few organic compound.  CO3 To test the impurities of few organic compound.  CO4 To know the preparation of inorganic pharmaceuticals.  Semester III  BP 307 P Pharmaceutical Microbiology [Practical   Regular ]  CO Course Outcome  ID.  CO2 To demonstrate various staining methods - simple, gram staining and acid fast staining  CO3 To interpret the results of microbial testing.  CO4 To demonstrate staining methods and culture methods  Microbiolofical assay of antibiotics  CO5 Microbiolofical assay of antibiotics  CO6 To demonstrate the sterility testing  CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory   Regular ]  CO Course Outcome  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	CO 4	Understand formulation and evaluation of semisolid dosage form
ID.  CO1 Know the source of impurities and determine the impurities in in organic compound.  CO2 Know the identification test foe few organic compound.  CO3 To test the impurities of few organic compound.  CO4 To know the preparation of inorganic pharmaceuticals.  Semester III  BP 307 P Pharmaceutical Microbiology [ Practical   Regular ]  CO Course Outcome  ID.  C1 To recall different techniques of sterilization.  C02 To demonstrate various staining methods - simple, gram staining and acid fast staining  C03 To interpret the results of microbial testing.  C04 To demonstrate Staining methods and culture methods  C05 Microbiolofical assay of antibiotics  C06 To demonstrate the sterility testing  C07 To demonstrate the bacteriological analysis of water  C08 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory   Regular ]  C0 Course Outcome  C01 Understand various molecular representations and their interconversions.  C02 Write the structure, name the reaction and the type of isomerism of the organic compound.  C03 Account for reactivity/stability of compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  C0 Course Outcome	BP110F	Pharmaceutical Inorganic Chemistry [ Practical  Regular ]
Now the identification test foe few organic compound.  To test the impurities of few organic compound.  To test the impurities of few organic compound.  To know the preparation of inorganic pharmaceuticals.  Semester III  BP 307 P Pharmaceutical Microbiology [ Practical   Regular ]  Co		Course Outcome
To test the impurities of few organic compound.  To know the preparation of inorganic pharmaceuticals.  Semester III  BP 307 P Pharmaceutical Microbiology [Practical   Regular ]  CO   Course Outcome   ID   Course Outcome	CO1	Know the source of impurities and determine the impurities in in organic compound.
To know the preparation of inorganic pharmaceuticals.  Semester III  BP 307 P Pharmaceutical Microbiology [ Practical   Regular ]  CO	CO2	Know the identification test foe few organic compound.
Semester III  BP 307 P Pharmaceutical Microbiology [ Practical [Regular ]  CO	CO3	To test the impurities of few organic compound.
BP 307 P Pharmaceutical Microbiology [ Practical   Regular ]  CO   Course Outcome	CO4	To know the preparation of inorganic pharmaceuticals.
CO Course Outcome  1D.  CO1 To recall different techniques of sterilization.  CO2 To demonstrate various staining methods - simple, gram staining and acid fast staining  CO3 To interpret the results of microbial testing.  CO4 To demonstrate Staining methods and culture methods  CO5 Microbiolofical assay of antibiotics  CO6 To demonstrate the sterility testing  CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP30TT Pharmaceutical Organic Chemistry-II [Theory  Regular]  CO Course Outcome  ID.  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory  Regular]  CO Course Outcome	Semes	ster III
ID.  CO1 To recall different techniques of sterilization.  CO2 To demonstrate various staining methods - simple, gram staining and acid fast staining  CO3 To interpret the results of microbial testing.  CO4 To demonstrate Staining methods and culture methods  CO5 Microbiolofical assay of antibiotics  CO6 To demonstrate the sterility testing  CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory [Regular]]  CO Course Outcome  ID.  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory [Regular]]  CO Course Outcome	BP 30	7 P Pharmaceutical Microbiology [ Practical  Regular ]
To demonstrate various staining methods - simple, gram staining and acid fast staining  To interpret the results of microbial testing.  To demonstrate Staining methods and culture methods  Microbiolofical assay of antibiotics  To demonstrate the sterility testing  To demonstrate the bacteriological analysis of water  To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory  Regular]  CO  Course Outcome  ID.  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory  Regular]  CO Course Outcome		Course Outcome
To interpret the results of microbial testing.  CO4 To demonstrate Staining methods and culture methods  CO5 Microbiolofical assay of antibiotics  CO6 To demonstrate the sterility testing  CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory   Regular    CO   Course Outcome    ID.    CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular    CO Course Outcome	CO1	To recall different techniques of sterilization.
CO4 To demonstrate Staining methods and culture methods  CO5 Microbiolofical assay of antibiotics  CO6 To demonstrate the sterility testing  CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory   Regular  ]  CO Course Outcome  ID.  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	CO2	To demonstrate various staining methods - simple, gram staining and acid fast staining
CO5 Microbiolofical assay of antibiotics CO6 To demonstrate the sterility testing CO7 To demonstrate the bacteriological analysis of water CO8 To demonstrate biochemical test BP301T Pharmaceutical Organic Chemistry-II [Theory  Regular ] CO6 Course Outcome ID. CO1 Understand various molecular representations and their interconversions. CO2 Write the structure, name the reaction and the type of isomerism of the organic compound. CO3 Account for reactivity/stability of compounds CO4 Write the reaction, name the reaction, mechanism and orientation of reactions CO5 Prepare small organic compounds BP302T Physical Pharmaceutics-I [Theory  Regular ] CO Course Outcome	CO3	To interpret the results of microbial testing.
To demonstrate the sterility testing  CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory  Regular]]  CO   Course Outcome  ID.  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory  Regular]  CO Course Outcome	CO4	To demonstrate Staining methods and culture methods
CO7 To demonstrate the bacteriological analysis of water  CO8 To demonstrate biochemical test  BP301T Pharmaceutical Organic Chemistry-II [Theory   Regular ]  CO   Course Outcome   ID.    CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3   Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5   Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO   Course Outcome	CO5	Microbiolofical assay of antibiotics
To demonstrate biochemical test  BP30IT Pharmaceutical Organic Chemistry-II [Theory   Regular ]  CO   Course Outcome    ID.   CO1   Understand various molecular representations and their interconversions.  CO2   Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3   Account for reactivity/stability of compounds  CO4   Write the reaction, name the reaction, mechanism and orientation of reactions  CO5   Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO   Course Outcome	CO6	To demonstrate the sterility testing
BP301T Pharmaceutical Organic Chemistry-II [Theory  Regular]  CO   Course Outcome    CO1   Understand various molecular representations and their interconversions.  CO2   Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3   Account for reactivity/stability of compounds  CO4   Write the reaction, name the reaction, mechanism and orientation of reactions  CO5   Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory  Regular]  CO   Course Outcome	C07	To demonstrate the bacteriological analysis of water
CO Course Outcome  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I[Theory Regular]  CO Course Outcome	CO8	To demonstrate biochemical test
ID.  CO1 Understand various molecular representations and their interconversions.  CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	BP301	T Pharmaceutical Organic Chemistry-II [ Theory   Regular ]
CO2 Write the structure, name the reaction and the type of isomerism of the organic compound.  CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome		Course Outcome
CO3 Account for reactivity/stability of compounds  CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	CO1	Understand various molecular representations and their interconversions.
CO4 Write the reaction, name the reaction, mechanism and orientation of reactions  CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	CO2	Write the structure, name the reaction and the type of isomerism of the organic compound.
CO5 Prepare small organic compounds  BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	CO3	Account for reactivity/stability of compounds
BP302T Physical Pharmaceutics-I [Theory   Regular ]  CO Course Outcome	CO4	Write the reaction, name the reaction, mechanism and orientation of reactions
CO Course Outcome	CO5	Prepare small organic compounds
	BP302	T Physical Pharmaceutics-I [ Theory   Regular ]
		Course Outcome

CO2         Study the limitations and applications of Distribution law           CO3         Learn the steps involved in the preparation of pharmaceutical furfiers and its importance           CO4         Study the use of physicochemical properties in formulation research and development           CO5         Acquire sails and working knowledge of the participles and concepts of surface tension and its measurement           B030377 Pharmaceutical Microbiology (Theory Regular)           CO2         Course Outcome           CO3         Learn sterility testing of pharmaceutical products.           CO4         Course Outcome           CO5         Learn sterility testing of pharmaceutical products.           CO6         Understand the cell culture technology and its applications in pharmaceutical industries.           CO7         Course Outcome           CO8         Understand the cell culture technology and its applications in pharmaceutical industries.           CO9         Course Outcome           CO1         1 to know various unit coerations used in Pharmaceutical industries.           CO2         To understand the material handling techniques.           CO3         1 contraval unit coerations used in Pharmaceutical industries.           CO4         1 to represent various preventive microbids used for corrosion control in Pharmaceutical Industries.           CO5         1 contracts the structure of previo	CO1	Understand the mechanisms of solute solvent interactions
Study the use of physicochemical properties in formulation research and development	CO2	Study the limitations and applications of Distribution law
Course Outcome	CO3	Learn the steps involved in the preparation of pharmaceutical buffers and its importance
BP903T Pharmaceutical Microbiology [Theory   Regular	CO4	Study the use of physicochemical properties in formulation research and development
Course Outcome  Course Outcome	CO5	Acquire skills and working knowledge of the principles and concepts of surface tension and its measurement
December	BP303	T Pharmaceutical Microbiology [ Theory   Regular ]
CO2 To understand the Importance and Implementation of steritization in pharmaceutical processing and Industry  CO3 Learn sterility testing of pharmaceutical products.  CO4 Carried out microbiological standardization of Pharmaceuticals.  CO5 Understand the cell culture technology and its applications in pharmaceutical Industries.  BP304T Pharmaceutical Engineering [Theory [Regular]]  CO6 Course Outcome  CO1 To know various unit operations used in Pharmaceutical Industries.  CO2 To understand the material handling techniques.  CO3 To perform various processes involved in pharmaceutical manufacturing process.  CO4 To carry out various test to prevent environmental pollution  CO5 To appreciate and comprehend significance of plant lay out design for optimum use of resources.  CO6 To appreciate the various prevently methods used for corrosion control in Pharmaceutical Industries.  BP305P Pharmaceutical Organic Chemistry-II[Practical [Regular]]  CO6 Course Outcome  CO1 Know different simple laboratory techniques for purification of organic compounds  CO3 Synthesize different organic compounds and know reaction & Mechanism  CO4 Communicate effectively the observations and results of an experiment  BP305P Physical Pharmaceutics-I [Practical [Regular]]  CO6 Course Outcome  CO1 To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2 To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO5 To determine the surface tension of sample liquids by drop count and drop weight methods  BP305P Pharmaceutical Engineering [Practical [Regular]  CO6 To determine the surface tension of sample liquids by drop count and drop weight methods.  BP305P Pharmaceutical Engineering [Practical [Regular]  CO6 To determine the surface tension of sample liquids by drop count and drop weight methods.		Course Outcome
CO3 Learn sterility testing of pharmaceutical products.  CO4 Carried out microbiological standardization of Pharmaceuticals.  CO5 Understand the cell culture technology and its applications in pharmaceutical industries.  BP304TPharmaceutical Engineering [Theory]Regular]  CO6 Course Outcome  CO7 To know various unit operations used in Pharmaceutical industries.  CO7 To understand the material handling techniques.  CO8 To understand the material handling techniques.  CO8 To appreciate and comprehend significance of plant lay out design for optimum use of resources.  CO6 To appreciate the various preventive methods used for corrosion control in Pharmaceutical Industries.  BP305PPharmaceutical Organic Chemistry III [Practical  Regular]  CO6 To appreciate the various preventive methods used for corrosion control in Pharmaceutical Industries.  BP305PPharmaceutical Organic Chemistry III [Practical  Regular]  CO6 Lourse Outcome  CO7 Identify the mixture of organic compounds  CO8 Identify the mixture of organic compounds and know reaction 8 Mechanism  CO9 Communicate effectively the observations and results of an experiment  BP306PPhysical Pharmaceutic3-I [Practical  Regular]  CO9 Course Outcome  CO1 To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO9 To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO9 To determine the surface tension of sample liquids by drop count and drop weight methods  To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO9 To determine the surface tension of sample liquids by drop count and drop weight methods  To a determine the surface tension of sample liquids by drop count and drop weight methods  To deduce the HLB value and critical micellar concentration of a surfactant.  CO8 Course Outcome	CO1	Understand methods of identification, cultivation and preservation of various microorganisms
CO4 Carried our microbiological standardization of Pharmaceuticals.  CO5 Understand the cell culture technology and its applications in pharmaceutical industries.  BP304T Pharmaceutical Engineering [Theory Regular]  CO Course Outcome  [D. Course Outcome  CO 1 To know various unit operations used in Pharmaceutical industries.  CO 2 To understand the material handling techniques.  CO 3 To perform various processes involved in pharmaceutical manufacturing process.  CO 4 To carry out various test to prevent environmental pollution  CO 5 To appreciate and comprehend significance of plant lay out design for optimum use of resources.  CO 6 To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.  BP305P Pharmaceutical Organic Chemistry-II [Practical  Regular]  CO Curse Outcome  [D. Curse Outcome  CO Identify the mixture of organic compounds and know reaction & Mechanism  CO4 Communicate effectively the observations and results of an experiment  BP306P Physical Pharmaceutics-I [Practical  Regular]  CO Course Outcome  CO I ourse Outcome  CO I ourse Outcome  CO To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO apply Henderson Hasselbalch equation for interpretation of pka value of drugs  To determine the surface tension of sample liquids by drop count and drop weight methods  To determine the surface tension of sample liquids by drop count and drop weight methods  To determine the surface tension of sample liquids by drop count and drop weight methods  To determine the surface tension of sample liquids by drop count and drop weight methods  To determine the surface tension of sample liquids by drop count and drop weight methods  To determine the surface tension of sample liquids by drop count and drop weight methods  To determine the surface tension of sample liquids by drop count and drop weight methods	CO2	To understand the importance and implementation of sterlization in pharmaceutical processing and industry
BP304T Pharmaceutical Engineering [Theory Regular]  CO   Course Outcome	CO3	Learn sterility testing of pharmaceutical products.
BP304T Pharmaceutical Engineering [Theory Regular]  CO   Course Outcome	CO4	Carried out microbiological standardization of Pharmaceuticals.
CO   Course Outcome   C	CO5	Understand the cell culture technology and its applications in pharmaceutical industries.
ID.         CO 1         To know various unit operations used in Pharmaceutical industries.           CO 2         To understand the material handling techniques.           CO 3         To perform various processes involved in pharmaceutical manufacturing process.           CO 4         To carry out various test to prevent environmental pollution           CO 5         To appreciate and comprehend significance of plant lay out design for optimum use of resources.           CO 6         To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.           BP3057Pharmaceutical Organic Chemistry-II [Practical [Regular]]           CO Jourse Outcome           Identify the mixture of organic compounds           CO Identify the mixture of organic compounds           CO Identify the mixture of organic compounds and know reaction & Mechanism           CO Identify the mixture of organic compounds and results of an experiment           BP3057Physical Pharmaceutics-I [Practical [Regular]]           CO Course Outcome           CO In understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.           CO In understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.           CO To exp	BP304	TPharmaceutical Engineering [Theory Regular]
To understand the material handling techniques.  To perform various processes involved in pharmaceutical manufacturing process.  To perform various processes involved in pharmaceutical manufacturing process.  To appreciate and comprehend significance of plant lay out design for optimum use of resources.  To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.  P3055P Pharmaceutical Organic Chemistry-II [Practical  Regular]  CO   Course Outcome  CO1   Know different simple laboratory techniques for purification of organic compounds  CO2   Identify the mixture of organic compounds  CO3   Synthesize different organic compounds and know reaction & Mechanism  CO4   Communicate effectively the observations and results of an experiment  BP306F Physical Pharmaceutics-I[Practical  Regular]  CO4   Course Outcome  CO5   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pka in the design of dosage forms.  CO5   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO6   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO7   To determine the surface tension of sample liquids by drop count and drop weight methods  CO8   To detuce the HLB value and critical micellar concentration of a surfactant.  CO6   To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [Practical  Regular]  CO   Course Outcome		Course Outcome
To perform various processes involved in pharmaceutical manufacturing process.  To appreciate and comprehend significance of plant lay out design for optimum use of resources.  To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.  BP30SP Pharmaceutical Organic Chemistry-II [Practical  Regular]  CO   Course Outcome  CO1   Know different simple laboratory techniques for purification of organic compounds  CO2   Identify the mixture of organic compounds  CO3   Synthesize different organic compounds and know reaction & Mechanism  CO4   Communicate effectively the observations and results of an experiment  BP30SP Physical Pharmaceutics-I [Practical  Regular]  CO3   Course Outcome  CO4   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO5   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO6   To determine the surface tension of sample liquids by drop count and drop weight methods  CO7   To deduce the HLB value and critical micellar concentration of a surfactant.  CO8   To estimate the stability constants of complexes by solubility and pH titration methods.  BP30SP Pharmaceutical Engineering [Practical  Regular]  CO9   Course Outcome	CO 1	To know various unit operations used in Pharmaceutical industries.
To carry out various test to prevent environmental pollution To appreciate and comprehend significance of plant lay out design for optimum use of resources. To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.  BP30SP Pharmaceutical Organic Chemistry-II[Practical  Regular]  Course Outcome	CO2	To understand the material handling techniques.
To appreciate and comprehend significance of plant lay out design for optimum use of resources.  To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.  P305P Pharmaceutical Organic Chemistry-II[ Practical  Regular]  CO   Course Outcome    CO   Know different simple laboratory techniques for purification of organic compounds  CO   Identify the mixture of organic compounds  CO   Communicate effectively the observations and results of an experiment  P306P Physical Pharmaceutics-I[ Practical  Regular]  CO   Course Outcome    CO   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO   To determine the surface tension of sample liquids by drop count and drop weight methods  CO   To deduce the HLB value and critical micellar concentration of a surfactant.  CO   To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular    CO   Course Outcome  CO   Course Outcome	CO3	To perform various processes involved in pharmaceutical manufacturing process.
To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.  BP305P Pharmaceutical Organic Chemistry-II [Practical  Regular]  CO   Course Outcome    CO1   Know different simple laboratory techniques for purification of organic compounds    CO2   Identify the mixture of organic compounds    CO3   Synthesize different organic compounds and know reaction & Mechanism    CO4   Communicate effectively the observations and results of an experiment    BP306P Physical Pharmaceutics-I [Practical  Regular]    CO4   Course Outcome    CO5   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO3   To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs    CO4   To determine the surface tension of sample liquids by drop count and drop weight methods    CO5   To deduce the HLB value and critical micellar concentration of a surfactant.  CO6   To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [Practical  Regular]    CO6   Course Outcome	CO4	To carry out various test to prevent environmental pollution
Pharmaceutical Organic Chemistry-II [Practical   Regular ]  CO   Course Outcome    CO   Know different simple laboratory techniques for purification of organic compounds    CO2   Identify the mixture of organic compounds    CO3   Synthesize different organic compounds and know reaction & Mechanism    CO4   Communicate effectively the observations and results of an experiment    BP306P Physical Pharmaceutics-I [Practical   Regular ]    CO   Course Outcome    CO1   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.    CO2   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.    CO3   To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs    CO4   To determine the surface tension of sample liquids by drop count and drop weight methods    CO5   To deduce the HLB value and critical micellar concentration of a surfactant.    CO6   To estimate the stability constants of complexes by solubility and pH titration methods.    BP308P Pharmaceutical Engineering [Practical   Regular ]    CO6   Course Outcome	CO5	To appreciate and comprehend significance of plant lay out design for optimum use of resources.
CO Course Outcome  (D. Course Outcome  (D. Know different simple laboratory techniques for purification of organic compounds  (D. Identify the mixture of organic compounds  (D. Identify the mixture of organic compounds  (D. Synthesize different organic compounds and know reaction & Mechanism  (D. Communicate effectively the observations and results of an experiment  (D. Physical Pharmaceutics-I [Practical   Regular ]  (D. Course Outcome  (D. To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  (D. To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  (D. To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  (D. To determine the surface tension of sample liquids by drop count and drop weight methods  (D. To deduce the HLB value and critical micellar concentration of a surfactant.  (D. To estimate the stability constants of complexes by solubility and pH titration methods.  (D. Course Outcome	CO6	To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries.
ID.  CO1 Know different simple laboratory techniques for purification of organic compounds  CO2 Identify the mixture of organic compounds  CO3 Synthesize different organic compounds and know reaction & Mechanism  CO4 Communicate effectively the observations and results of an experiment  BP306FPhysical Pharmaceutics-I [Practical  Regular]  CO Course Outcome  ID.  CO3 To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2 To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO3 To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO4 To determine the surface tension of sample liquids by drop count and drop weight methods  CO5 To deduce the HLB value and critical micellar concentration of a surfactant.  CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308FPharmaceutical Engineering [Practical  Regular]  CO Course Outcome	BP305	P Pharmaceutical Organic Chemistry-II [ Practical  Regular ]
Identify the mixture of organic compounds  CO3 Synthesize different organic compounds and know reaction & Mechanism  CO4 Communicate effectively the observations and results of an experiment  BP306P Physical Pharmaceutics-I [Practical   Regular ]  CO Course Outcome  ID. To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2 To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO3 To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO4 To determine the surface tension of sample liquids by drop count and drop weight methods  CO5 To deduce the HLB value and critical micellar concentration of a surfactant.  CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome		Course Outcome
Synthesize different organic compounds and know reaction & Mechanism  CO4 Communicate effectively the observations and results of an experiment  BP306P Physical Pharmaceutics-I [Practical   Regular ]  CO   Course Outcome    CO1	CO1	Know different simple laboratory techniques for purification of organic compounds
CO4 Communicate effectively the observations and results of an experiment  BP306P Physical Pharmaceutics-I [Practical  Regular]  CO   Course Outcome    CO1   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO3   To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO4   To determine the surface tension of sample liquids by drop count and drop weight methods  CO5   To deduce the HLB value and critical micellar concentration of a surfactant.  CO6   To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [Practical  Regular]  CO   Course Outcome	CO2	Identify the mixture of organic compounds
BP306P Physical Pharmaceutics-I [Practical   Regular ]  CO   Course Outcome    CO1   To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2   To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO3   To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO4   To determine the surface tension of sample liquids by drop count and drop weight methods  CO5   To deduce the HLB value and critical micellar concentration of a surfactant.  CO6   To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [Practical   Regular ]  CO   Course Outcome	CO3	Synthesize different organic compounds and know reaction & Mechanism
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ID.  CO1 To understand the significance of physical properties such as solubility, surface tension, partition coefficient and pKa in the design of dosage forms.  CO2 To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.  CO3 To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO4 To determine the surface tension of sample liquids by drop count and drop weight methods  CO5 To deduce the HLB value and critical micellar concentration of a surfactant.  CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome	BP306	 SP Physical Pharmaceutics-I [ Practical   Regular ]
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CO3 To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs  CO4 To determine the surface tension of sample liquids by drop count and drop weight methods  CO5 To deduce the HLB value and critical micellar concentration of a surfactant.  CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome	CO1	
CO4 To determine the surface tension of sample liquids by drop count and drop weight methods  CO5 To deduce the HLB value and critical micellar concentration of a surfactant.  CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome	CO2	To explain adsorption isotherms and determine Freundlich-Langmuir constant using activated charcoal.
CO5 To deduce the HLB value and critical micellar concentration of a surfactant.  CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome	CO3	To apply Henderson Hasselbalch equation for interpretation of pKa value of drugs
CO6 To estimate the stability constants of complexes by solubility and pH titration methods.  BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome	CO4	To determine the surface tension of sample liquids by drop count and drop weight methods
BP308P Pharmaceutical Engineering [ Practical   Regular ]  CO Course Outcome	CO5	To deduce the HLB value and critical micellar concentration of a surfactant.
CO Course Outcome	CO6	To estimate the stability constants of complexes by solubility and pH titration methods.
	BP308	BP Pharmaceutical Engineering [ Practical   Regular ]
		Course Outcome

Commentation and capilina about the construction, working and applications of pharmaceutical equipments such as called milly planetary mixer, fluidized bed dryer and freeze dryer.  CCC   To determine radiation constant of brass, iron, unpointed and painted glass.  CCC   To determine awarall heat transfer coefficient by heat exchanger and calculate the efficiency of stoom distillation.  CCC   To determine awarall heat transfer coefficient by heat exchanger and calculate the efficiency of stoom distillation.  CCC   To know various unit operations used in Pharmaceutical industries.  CCC   To know various unit operations used in Pharmaceutical industries.  CCC   To know various unit operations used in Pharmaceutical industries.  CCC   To supercoate the warious preventive methods used for corrosion control in Pharmaceutical industries  Semicians   Value of Pharmaceutical Pharmaceutical Pharmaceutical Industries  CCC   Course Outcome    CCC   Course Outcome    CCC   Course Outcome    CCC   Appreciate correlation of pharmaceutopy with related medical searces  DCC   Pharmaceutical Pharmaceutical Pharmaceutical Industries in the treatment of different diseases  CCC   Appreciate correlation of pharmaceuticy if [Practical [Regular]]  CCC   Course Outcome    CCC   Co	CO1	To understand the basic principles involved in unit operations such as size reduction, size separation, distillation and drying.
To determine radiation constant of brass, iron, unpainted and painted glass.   To determine overall heat transfer coefficient by heat exchanger and calculate the efficiency of steam distillation.   To determine overall heat transfer coefficient by heat exchanger and calculate the efficiency of steam distillation.   To setimate meisture content, loss on drying and construct drying curves for calcium carbonate and starch.   To know various unit operations used in Pharmacoutical industries.   To understand the meteral handling techniques.   To understand the meteral handling techniques.   Summour	CO2	
To determine overall heat transfer coefficient by heat exchanger and calculate the efficiency of steam distillation.  To settmate moisture content, loss on drying and construct drying curves for calcium carbonate and starch.  To know various unit operations used in Pharmaceutical industries.  To know various unit operations used in Pharmaceutical industries.  To understand the material handling techniques.  To a perceitate the various processes involved in pharmaceutical manufacturing process.  To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries  Semesters  To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries  Semesters  To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries  Semesters  To appreciate the various preventive methods used for corrosion control in Pharmaceutical Industries  Semesters  To appreciate the various preventive methods of surious secondary method of different diseases  Co appreciate correlation of pharmaceutical manufacturing diseases  To appreciate correlation of pharmaceutical Regular in the treatment of different diseases  To appreciate correlation of pharmaceutical Regular in the treatment of different diseases  To appreciate correlation of pharmaceutical Regular in the precision of pharmaceutical Regular in the process of extraction, analysis and commercial application of various secondary metabolities containing drugs.  To application of latest techniques for analysis of phytoconestituents  Explain the process of insert techniques for analysis of phytoconestituents  Explain the process of insert techniques for analysis of phytoconestituents  Explain the process of unit part of the process of	CO3	To experiment with the process variables of filtration, evaporation and infer the same.
Cocurse Outcome	CO4	To determine radiation constant of brass, iron, unpainted and painted glass.
CO 1 To know various unit operations used in Pharmaceutical Industries.  CO 2 To understand the material handling techniques.  CO 3 To perform various processes involved in pharmaceutical manufacturing process.  CO 4 To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries  Semester V  BP 503 T Pharmacology-II [Theory Regular]  CO 1 Understand the mechanism of drug action and its relevance in the treatment of different diseases  CO 2 Appreciate correlation of pharmacology with related medical sciences  BP 508 P Pharmacognosy and Phytochemistry-III [Practical [Regular]]  CO 2 Course Outcome  CO 2 Explain source, chemistry, therapeutic uses of various secondary metabolities containing drugs  CO 2 Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs  CO 3 Describe various modern methods for extraction  CO 4 Application of latest techniques for analysis of phytoconstituents  CO 5 Explain the process of isolation, purification and identification of crude drugs  BPSOTT Medicinal Chemistry-III [Theory Regular]  CO 2 Course Outcome  CO 2 Explain drug metabolism 8 its significance in drug discovery  CO 3 State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agents according to their chemical structure and mechanism of action  CO 4 Recall the mechanism of action of drugs, side effects, therapeutic classes of drugs and recent developments  BPSOTT-industrial Pharmacy-II [Theory Regular]  CO 1 Course Outcome  CO 2 Course Outcome  CO 2 Course Outcome  CO 3 Course Outcome  CO 3 Course Outcome  CO 4 Promulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO 4 Promulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO 5 Promulate and prepare tablets, speales and liquid orals using established procedures and technology.	CO5	To determine overall heat transfer coefficient by heat exchanger and calculate the efficiency of steam distillation.
CO 2 To understand the material handling techniques.  CO 3 To perform various processes involved in pharmaceutical manufacturing process.  CO 4 To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries  Semester V  BP 503T Pharmacology-II[Theory[Regular]]  CO   Course Outcome    CO   Understand the mechanism of drug action and its relevance in the treatment of different diseases  CO 2 Appreciate correlation of pharmacology with related medical sciences  BP 508 P Pharmacognosy and Phytochemistry-II[Practical [Regular]]  CO   Course Outcome    CO   Explain source, chemistry, therapeutic uses of various secondary metabolites containing drugs  CO   Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.  CO   Describe methods of extraction, analysis of phytoconstituents  CO   Explain the process of isolation, purification and identification of crude drugs  BP509T Mcdicinal Chemistry II[Theory[Regular]]  CO   Explain drug metabolism & its significance in drug discovery  CO   Explain drug metabolism & its significance in drug discovery  CO   Explain drug metabolism & its significance in drug discovery  CO   Explain the process of therapeutic agents according to their chemical structure and mechanism of action of cution agents according to their chemical structure and mechanism of action agents activity relationship of therapeutic cuses and adverse effects  CO   Explain the chemistry and structure activity relationship of therapeutic diseases of drugs and recent developments  BP502T Inclustrial Pharmacy-I [Theory [Regular]]  CO   Course Outcome	CO6	To estimate moisture content, loss on drying and construct drying curves for calcium carbonate and starch.
CO 3 To perform various processes involved in pharmaceutical manufacturing process.  CO 4 To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries  Semester V  BP503TPharmacology-II[Theory Ragular]  CO   Course Outcome    CO   Understand the methanism of drug action and its relevance in the treatment of different diseases  CO   Appreciate correlation of pharmacology with related medical sciences  BP508 PPharmacognopogy and Phytochemistry-II[Practical [Regular]]  CO   Course Outcome    CO   Explain source, chemistry, therapeutic uses of various secondary metabolikes containing drugs  CO   Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.  CO   Describe various modern methods for extraction  CO   Application of latest techniques for analysis of phytoconstituents  CO   Explain the process of isolation, purification and identification of crude drugs  BP501T Medicinal Chemistry-II [Theory Ragular]  CO   Explain drug metabolism & its significance in drug discovery  CO   Explain drug metabolism & its significance in drug discovery  CO   Explain drug metabolism & its significance in drug discovery  CO   Explain the chemistry and structure activity relationship of therapeutic uses and adverse effects  Explain the chemistry and structure activity relationship of therapeutic uses and adverse effects  Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I[Theory Ragular]  CO   Curse Outcome  CO   Corro out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO   Corro outcome	CO 1	To know various unit operations used in Pharmaceutical industries.
Semester V  BP503 T Pharmacology-III [Theory [Regular]]  CO   Course Outcome   Outcome	CO 2	To understand the material handling techniques.
Semester V  BP 503 T Pharmacology-II [Theory [Regular]]  CO   Course Outcome   D.   Understand the mechanism of drug action and its relevance in the treatment of different diseases   D.   Appreciate correlation of pharmacology with related medical sciences   D.   Suppose P Pharmacognosy and Phytochemistry-II [Practical [Regular]]   D.   Course Outcome   D.   Course Outcome   D.   Explain source, chemistry, therapeutic uses of various secondary metabolites containing drugs   D.   Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs   D.   Describe various modern methods for extraction   D.   Suppose various modern methods for extraction   D.   Explain the process of isolation, purification and identification of crude drugs   D.   Explain the process of isolation, purification and identification of crude drugs   D.   Course Outcome   D.   Course Outcome   D.   Course Outcome   D.   State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent   D.   State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent   D.   Course Outcome   D.   Course Outcome   D.   State the mechanism of action of drugs, side effects, therapeutic uses and adverse effects   D.   State the mechanism of action of drugs, side effects, therapeutic uses and adverse effects   D.   State the mechanism of action of drugs, side effects, therapeutic uses and adverse effects   D.   Course Outcome   D.   Corrolate and prepare tablets, capsules and liquid orals using established procedures and technology.   D.   Corrolate and prepare tablets, capsules and liquid orals using established procedures and technology.   D.   Corrolate and prepare different types of parenteral and ophthalmic dosage forms.	CO 3	To perform various processes involved in pharmaceutical manufacturing process.
CO   Course Outcome   C	CO 4	To appreciate the various preventive methods used for corrosion control in Pharmaceutical industries
Course Outcome  Course Outcome	Semes	ster V
ID. Understand the mechanism of drug action and its relevance in the treatment of different diseases  Appreciate correlation of pharmacology with related medical sciences  BP 508 P Pharmacognosy and Phytochemistry-II [Practical   Regular ]  CO   Course Outcome   Course Outcome	BP 50	3 T Pharmacology-II [ Theory   Regular ]
Appreciate correlation of pharmacology with related medical sciences  BP 508 P Pharmacognosy and Phytochemistry-II [Practical [Regular]]  Course Outcome  Course Outcome  Course Outcome  Course Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.  Course Outcome  Course Describe warious modern methods for extraction  Course Outcome  Course Outcome of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent  Septial the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  Explain the enemistry and structure activity relationship of their chemical structure and mechanism of action  Course Outcome  Course Outc		Course Outcome
BP 500 Pharmacognosy and Phytochemistry-II [Practical  Regular]  CO   Course Outcome   Course Outcome    Explain source, chemistry, therapeutic uses of various secondary metabolites containing drugs    CO2   Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.  CO3   Describe various modern methods for extraction    CO4   Application of latest techniques for analysis of phytoconstituents    Explain the process of isolation, purification and identification of crude drugs    BP50TT Medicinal Chemistry-II [Theory Regular]    CO   Course Outcome    CO2   Explain drug metabolism & its significance in drug discovery    CO3   Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action    CO4   Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects    Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments    BP50TT Industrial Pharmacy-I [Theory Regular]    CO   Course Outcome    CO3   Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO4   Formulate and prepare different types of parenteral and ophthalmic dosage forms.  CO5   Explain the chemistry and structure and standards necessary for the industrial production of sterile dosage forms.	CO1	Understand the mechanism of drug action and its relevance in the treatment of different diseases
Course Outcome  Explain source, chemistry, therapeutic uses of various secondary metabolites containing drugs  Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.  Describe various modern methods for extraction  Application of latest techniques for analysis of phytoconstituents  Explain the process of isolation, purification and identification of crude drugs  BPSOTT Medicinal Chemistry-II [Theory Regular]  Co   Course Outcome  Course Outcome  Course Outcome  Cotassification of various categories of therapeutic agents according to their chemical structure and mechanism of action  Cotassification of various categories of therapeutic uses and adverse effects  Explain the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BPSOZT Industrial Pharmacy-I [Theory Regular]  Co   Course Outcome  Course Outcome of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  Course Outcome of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  Course Outcome of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  Course Outcome of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.	CO2	Appreciate correlation of pharmacology with related medical sciences
Explain source, chemistry, therapeutic uses of various secondary metabolites containing drugs   Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.   Describe various modern methods for extraction   Describe various modern methods for extraction   Application of latest techniques for analysis of phytoconstituents   Explain the process of isolation, purification and identification of crude drugs   BP501T Medicinal Chemistry-III [Theory   Regular ]	BP 50	B P Pharmacognosy and Phytochemistry-II [ Practical   Regular ]
Describe methods of extraction, analysis and commercial application of various secondary metabolites containing drugs.  Describe various modern methods for extraction  Application of latest techniques for analysis of phytoconstituents  Explain the process of isolation, purification and identification of crude drugs  BPSOTT Medicinal Chemistry-II [Theory   Regular]  CO   Course Outcome  CO   Explain drug metabolism & its significance in drug discovery  CO1   State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent  CO2   Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action  CO3   Classification of various development of drugs, side effects, therapeutic uses and adverse effects  CO5   Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BPSOZT Industrial Pharmacy-I [Theory   Regular    CO4   Course Outcome    CO5   Course Outcome    CO6   Course Outcome    CO7   Course Outcome    CO8   Course Outcome    CO9   Cour		Course Outcome
Describe various modern methods for extraction  Application of latest techniques for analysis of phytoconstituents  Explain the process of isolation, purification and identification of crude drugs  BP501T Medicinal Chemistry-II [Theory Regular]  CO   Course Outcome    Explain drug metabolism & its significance in drug discovery  CO1   State the history of development of different classes of CNS, CV5 active drugs, drug acting on endocrine system, and Antidiabetic agent    CO2   Explain of various categories of therapeutic agents according to their chemical structure and mechanism of action    CO3   Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action    CO4   Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  CO5   Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I [Theory Regular]  CO   Course Outcome    CO1   Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2   Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3   Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4   Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO1	Explain source, chemistry, therapeutic uses of various secondary metabolites containing drugs
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Explain the process of isolation, purification and identification of crude drugs  BPSOIT Medicinal Chemistry-II [Theory Regular]  CO   Course Outcome    CO2   Explain drug metabolism & its significance in drug discovery  CO3   State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent  CO3   Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action  CO4   Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  CO5   Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BPSO2T Industrial Pharmacy-I [Theory Regular]  CO6   Course Outcome    CO7   Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO8   Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO9   Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO9   Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO3	Describe various modern methods for extraction
BP50IT Medicinal Chemistry-II [Theory Regular]  CO Course Outcome  ID. CO2 Explain drug metabolism & its significance in drug discovery  CO1 State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent  CO3 Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action  CO4 Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  CO5 Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I [Theory Regular]  CO Course Outcome  CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO4	Application of latest techniques for analysis of phytoconstituents
CO ID. Course Outcome  CO2 Explain drug metabolism & its significance in drug discovery  CO3 State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent  CO3 Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action  CO4 Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  CO5 Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I [Theory Regular]  CO   Course Outcome    CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO5	Explain the process of isolation, purification and identification of crude drugs
<ul> <li>ID.</li> <li>CO2 Explain drug metabolism &amp; its significance in drug discovery</li> <li>CO1 State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent</li> <li>CO3 Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action</li> <li>CO4 Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects</li> <li>CO5 Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments</li> <li>BP502T Industrial Pharmacy-I [Theory   Regular  </li> <li>CO0 Course Outcome</li> <li>CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.</li> <li>CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.</li> <li>CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.</li> <li>CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms</li> </ul>	BP501	T Medicinal Chemistry-II [ Theory   Regular ]
State the history of development of different classes of CNS, CVS active drugs, drug acting on endocrine system, and Antidiabetic agent  CO3 Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action  CO4 Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  CO5 Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I [Theory [Regular]]  CO   Course Outcome    CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms		Course Outcome
agent CO3 Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action CO4 Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects CO5 Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments BP502T Industrial Pharmacy-I [Theory [Regular]] CO   Course Outcome CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms. CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology. CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms. CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO2	Explain drug metabolism & its significance in drug discovery
CO3 Classification of various categories of therapeutic agents according to their chemical structure and mechanism of action  CO4 Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects  CO5 Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I [Theory   Regular ]  CO   Course Outcome  CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO1	
Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments  BP502T Industrial Pharmacy-I [Theory   Regular ]  CO   Course Outcome    CO1   Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2   Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3   Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4   Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO3	
BP502T Industrial Pharmacy-I [Theory   Regular ]  CO Course Outcome  ID. Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO4	Recall the mechanism of action of drugs, side effects, therapeutic uses and adverse effects
CO Course Outcome  CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.  CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO5	Explain the chemistry and structure activity relationship of therapeutic classes of drugs and recent developments
<ul> <li>CO1 Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.</li> <li>CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.</li> <li>CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.</li> <li>CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms</li> </ul>	BP502	T Industrial Pharmacy-I [Theory   Regular ]
CO2 Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.  CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms		Course Outcome
CO3 Describe the facilities and standards necessary for the industrial production of sterile dosage forms.  CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO1	Carry out assessment of physicochemical properties of drugs as a tool in the optimization of solid and liquid dosage forms.
CO4 Formulate and prepare different types of parenteral and ophthalmic dosage forms	CO2	Formulate and prepare tablets, capsules and liquid orals using established procedures and technology.
	CO3	Describe the facilities and standards necessary for the industrial production of sterile dosage forms.
CO5 Evaluate the pharmaceutical dosage forms for quality and stability and compare with standards prescribed in the pharmacopoeia	CO4	Formulate and prepare different types of parenteral and ophthalmic dosage forms
	CO5	Evaluate the pharmaceutical dosage forms for quality and stability and compare with standards prescribed in the pharmacopoeia

CO6	Select ingredients and formulate cosmetics such as lipsticks, shampoos, cold cream and vanishing cream, tooth pastes, hair dyes and sunscreens
CO7	Identify containers, closures, valves and propellants for different types of aerosol systems.
CO8	Select and evaluate appropriate packaging materials for various pharmaceutical dosage forms.
BP504	4 T Pharmacognosy and Phytochemistry-II [ Theory   Regular ]
CO ID.	Course Outcome
CO1	To know the modern extraction techniques, characterization and identification of the herbal drugs and phytoconstituents
CO2	To understand the production of of Phytoconstituents /herbal formulation.
CO3	To understand the metabolic pathways in formation of secondary metabolites and application of biogenetic studies
CO4	To carryout isolation and identification of phytoconstituents
BP505	T Pharmaceutical Jurisprudence [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Understand the history of Pharmaceutical legislation and conduct of the code of ethics regarding the pharmacy profession in India
CO2	Study Pharmacy Act, Medicinal and Toilet Preparation Act, Narcotics and Psychotropic Substances Act, Features of Drugs and Magic Remedies Act, and Medical Termination of Pregnancy Act
CO3	Study Prevention of Cruelty to animals Act, National Pharmaceutical Pricing Authority and Right to Information Act.
CO4	Study of Introduction to Intellectual Property Rights (IPR).
BP506	5P Industrial Pharmacy-I [ Practical  Regular ]
CO ID.	Course Outcome
CO1	Important of preformulation of drug ,in formulation of dosage form.
CO2	Knowledge of preparation of tablet and liquid dosage forms and evaluation of formulation.
CO3	Knowledge on preparation and evaluations of capsules.
CO4	Knowledge on sterile product preparation and there evaluation
CO5	Knowledge on formulations of cosmetics, and packaging material science.
BP507	7P Pharmacology-II [ Practical  Regular ]
CO ID.	Course Outcome
CO1	To learn the importance of physiological salt solutions and to identify the effect of various drugs on isolated frog heart, blood pressure and heart rate of dog.
CO2	To illustrate the diuretic activity of drugs in mice/rats
CO3	To identify the dose response relationship, effect of drugs on DRC and to construct the drug concentrations by various bioassay methods using animal simulator software.
CO4	To categorize the PA2 and PD2 value of drugs using rat anococcygeus muscle and guinea pig ileum.
CO5	To interpret the effect of spasmogens and spasmolytics using rabbit jejunum.
CO6	To predict various screening models for analgesic and anti-inflammatory.
Seme	ster VII
Practi	ce School [ Practical  Elective ]
CO ID.	Course Outcome
BP 70	3 Tated Pharmacy Practice [ Theory   Regular ]

CO ID.	Course Outcome	
CO1	Know various drug distribution methods in a hospital	
CO2	Appreciate the pharmacy stores management and inventory control	
CO3	Monitor drug therapy of patient through medication chart review and clinical review, Identify drug related problems and Detect and assess adverse drug reactions	
CO4	Obtain medication history interview and counsel the patients , Know pharmaceutical care services, Do patient counseling in community pharmacy, Interpret selected laboratory results (as monitoring parameters in therapeutics) of specific disease statesand Appreciate the concept of rational drug therapy.	
BP 70	4 T Novel Drug Delivery System [Theory   Regular ]	
CO ID.	Course Outcome	
CO 1	To understand various approaches for development of novel drug delivery systems.	
CO 2	To understand the criteria for selection of drugs and polymers for the development of Novel drug delivery systems, their formulation and evaluation.	
BP701	Tinstrumental Methods of Analysis [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Illustrate the interaction of matter with electromagnetic radiations	
CO2	Classify the chromatographic separation methods	
CO3	Design methods for performing quantitative & qualitative analysis of drugs using various analytical instruments.	
BP702	T Industrial Pharmacy-II [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Discuss the process of pilot plant scale up of pharmaceutical dosage forms.	
CO2	Demonstrate the practice and the process of technology transfer from lab scale to commercial.	
CO3	Explain the different laws and acts that regulate pharmaceutical industry.	
CO4	Describe the approval process and regulatory requirements of drug products.	
BP705	SP Instrumental Methods of Analysis [ Practical  Regular ]	
CO ID.	Course Outcome	
CO1	Explain the different types of instrumental analytical techniques available for quality control of APIs & formulations	
CO2	Explain the different types of chromatographic techniques available for quality control of APIs & formulations	
co3	Interpret the data obtained through experimentation and report the results as per regulatory requirements.	
Semes	ster I (Elective) Remedial Biology	
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Semester I (Elective) Remedial Mathematics



#### Pune District Education Association's

### Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [M Pharm (Pharmaceutics) - 2021-22]

Semest	er II	
MPH20	MPH201T Molecular Pharmaceutics (Nano Tech and Targeted DDS) [Theory   Regular]	
CO ID.	Course Outcome	
CO1	Design drug delivery systems for targeting drugs to tumours and to the brain	
CO2	Prepare and evaluate nanoparticles and liposomes as carriers for drug targeting	
CO3	Select drugs and polymers in the design of microspheres and microcapsules for various applications.	
CO4	Formulate aquasomes, niosomes, phytosomes and electrosomes for various applications in drug targeting	
CO5 MPH20.	Develop strategies for improving nasal absorption in the design of nasal drug delivery systems 2T Advanced Biopharmaceutics & Pharmacokinetics [Theory   Regular ]	
CO ID.	Course Outcome	
CO 1	The basic concepts in bio pharmaceutics and pharmacokinetics.	
CO 2	The critical evaluation of biopharmaceutical studies involving drug product equivalency	
CO 3 MPH20	The design and evaluation of dosage regimens of the drugs using pharmacokinetic and bio pharmaceutics parameters.	
CO ID.	Course Outcome	
CO 1	History of Computers in Pharmaceutical Research and Development	
CO 2	Computational Modeling of Drug Disposition	
CO 3	Computers in Preclinical Development	
CO 4 MPH20	Optimization Techniques inPharmaceutical Formulation 4T Cosmetic & Cosmeceuticals [ Theory   Regular ]	
CO ID.	Course Outcome	
CO 1	Key ingredients used in cosmetics and cosmeceuticals	
CO 2	Key building blocks for various formulations.	
CO 3	Various key ingredients and basic science to develop cosmetics and cosmeceuticals	
CO 4 MPH20	Scientific knowledge to develop cosmetics and with desired Safety, stability, and efficacy 5P Pharmaceutics Practical-II [ Practical   Regular ]	
CO ID.	Course Outcome	
CO 1	To design, formulate and evaluate microparticulate and nanoparticle formulations and to assess the effect of different process variableson their performance	
CO 2	To assess, analyze and correlate the in vitro and in vivo performance of developed pharmaceutical product as per the guidelines	
CO 3 Semest	To formulate and evaluate herbal and conventional cosmetics er IV	

# Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [M Pharm (Pharmaceutical Chemistry) - 2021-22]

Semes	Semester II	
MPC 2	MPC 201T Advanced Spectral Analysis [Theory   Regular ]	
CO ID.	Course Outcome	
CO1	The students should be able to Understand various hyphenated analytical instrumental techniques for identification, characterization and quantification of drugs (UV, IR, NMR, Mass spectrometry, thermal and chromatographic techniques)	
CO2	Understand the instrumentation, theoretical and practical skills of instrument handling and its use	
CO3	Interpret the NMR, Mass and IR spectra of various organic compounds	
CO4	To elucidate the structure of organic compounds using this spectroscopic tools	
MPC10	5P Pharmaceutical Chemistry Practical-II [ Practical   Regular ]	
CO ID.	Course Outcome	
CO1	To understand various approaches of synthesis of API	
CO2	To interpret IR, NMR, and mass spectrum of organic compounds	
CO3	To identify the organic compounds by IR, NMR and Mass analysis	
CO4	To prepare different compounds by synthetic route	
CO5	To perform computer aided drug design software based practicals	
MPC20	D2T Advanced Organic Chemistry-II [ Theory   Regular ]	
CO ID.	Course Outcome	
CO1	Explain the principles and Applications of Green Chemistry	
CO2	Explain the concept of peptide chemistry.	
CO3	Explain the various catalysts used in organic reactions	
CO4	Explain the concept of stereochemistry and asymmetric synthesis.	
MPC20	03T Computer Aided Drug Design [Theory   Regular]	
CO ID.	Course Outcome	
CO1	Acquired expertise to utilize molecular modeling software in the design of novel drug-like molecules.	
CO2	Can apply various strategies to design &develop new drug like molecules using CADD and QSAR methods.	
CO3	Able to understand various strategies to design and develop new drug like molecules.	
CO4	Capable of carrying out molecular modeling and molecular docking studies.	
CO5	Possess knowledge of in silico virtual screening protocols.	
MPC20	04T Pharmaceutical Process Chemistry [ Theory   Regular ]	
CO ID.	Course Outcome	
CO1	To develop synthetic routes that is safe, cost-effective, environmentally friendly, and efficient.	
CO2	To impart knowledge on the development and optimization of a synthetic route/s.	

CO3	The pilot plant procedure for the manufacture of Active Pharmaceutical Ingredients and new chemical entities for the drug development phase.
CO4	□ To create and carry out work up and separation procedure and to predict the outcome of organic reactions using a basic understanding of the general reactivity of functional groups and mechanism.
CO5	The principles and applications of modern chemical instrumentation, experimental design, and data analysis.
Semes	ster IV

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COLLEGE OF PHARMACY, SASWAD
TAL. PURANDHAR. DIST. PUNE-412 301

### Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [M Pharm (Pharmaceutical Chemistry) - 2021-22]

Semes	ster I
Advan	ced Medicinal Chemistry [Theory   Regular ]
CO ID.	Course Outcome
C01	The student would be in position to design a stereoselective synthesis of new chemical entities (NCE) for the treatment of different diseases in new drug discovery Program.
CO2	The student would be in a position to have detailed knowledge of computer aided drug design which is useful to involve in new drug discovery Program by the utilization of natural leads and also with the help of structure-based drug design
CO3	: The student would be in a position to explore the natural lead compounds for the treatment of different diseases like cancer, malaria, diabetes etc.
CO4	The appreciable knowledge will be gained by the students in the Modern Analytical Techniques and can apply the theories in the Analysis of various bulk drugs and their formulations. The students will also be in a position to apply their knowledge in developing the new methods for the determination and validate the procedures.
101T M	odern Pharmaceutical Analytical Techniques [Theory  Regular ]
CO ID.	Course Outcome
CO1	Understand Analytical techniques for identification, Characterization and quantification of drugs
CO2	Know about theoretical and practical skills of instrument handling and its use
CO3	Understand structural Elucidation of organic compounds using data of spectroscopic tools such as UV, IR, NMR, Mass spectrometer, HPLC, GC.
101T M	odern Pharmaceutical Analytical Techniques-1 [Theory   Elective ]
CO ID.	Course Outcome
CO1	Understand Analytical techniques for identification, Characterization and quantification of drugs
CO2	Know about theoretical and practical skills of instrument handling and its use
CO3	Understand structural Elucidation of organic compounds using data of spectroscopic tools such as UV, IR, NMR, Mass spectrometer, HPLC, GC.
мрс 1	05P Pharmaceutical Chemistry Practical-I (Part-I and II) [ Practical  Regular ]
CO ID.	Course Outcome
CO3	To analyze and estimate the organic compounds and biological by spectroscopic, fluorimetry, flame photometry methods
CO4	To separate the impurities or mixtures of organic compounds by using column chromatographic, HPLC, and gas chromatography methods
CO 1	To synthesize and characterize medicinally important compounds
CO 2	To perform various named reactions synthesis
MPC10	D2T Advanced Organic Chemistry-I[ Theory   Regular ]
CO ID.	Course Outcome
CO1	Upon completion of course, the students shall be able to Explain the principles and applications of reterosynthesis
CO2	Explain the mechanism & applications of various named reactions.
CO3	Write the concept of disconnection to develop synthetic routes for small target molecule.

CO4	Know the various catalysts used in organic reactions.
CO5	Explain the chemistry of heterocyclic compounds
MPC1	04T Chemistry of Natural Products [Theory  Regular]
CO ID.	Course Outcome
CO1	Study different types of natural compounds and their chemistry and medicinal importance
CO2	Explain the importance of natural compounds as lead molecules for new drug discovery
CO3	Explain the concept of DNA & rDNA technology tool for new drug discovery
CO4	Isolation, Purification and characterization of simple chemical constituents from natural source
Seme	ster III
Introd	luction to Constitution [Theory   Elective ]
CO ID.	Course Outcome
CO1	To realise the significance of constitution of India to students from all walks of life and help them to understand the basic concepts of Indian constitution
CO2	To identify the importance of fundamental rights aswell as fundamental duties.
CO3	To understand the functioning of Union, State and Local Governments in Indian federal system.
CO4	To learn procedure and effects of emergency, composition and activities of election commission and amendment procedure.
MRM3	301T Research Methodology and Biostatistics [Theory   Regular ]
CO ID.	Course Outcome
CO2	Describe the appropriate statistical methods required for a particular research design
CO1	Develop the ability to apply the methods while working on a research project work
CO3	Choose the appropriate research design and develop appropriate research hypothesis for a research project
CO4	Develop a appropriate framework for research studies



# Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [M Pharm (Pharmacology) - 2021-22]

Semes	ter II
MPL 20	D2 T Pharmacological and Toxicological Screening Methods-II [ Theory   Regular ]
CO ID.	Course Outcome
CO1	students should able to explain the various types of toxicity studies.
CO2	students should get a knowledge of importance of ethical and regulatory requirements for toxicity studies.
CO3	students should get an idea of skills require conducting for preclinical toxicity studies
MPL 20	04 T Clinical Research and Pharmacovigilance [Theory   Regular ]
CO ID.	Course Outcome
CO1	Explain the regulatory requirements for conducting clinical trial
CO2	Demonstrate the types of clinical trial designs
CO3	Explain the responsibilities of key players involved in clinical trials
CO4	Execute safety monitoring, reporting and close-out activities.
CO5	Explain the principles of Pharmacovigilance
CO6	Detect new adverse drug reaction and their assessment.
CO7	Perform the adverse drug reaction reporting systems and communication in Pharmacovigilance.
MPL 20	D5 P Pharmacology Practical-II [ Practical  Regular ]
CO ID.	Course Outcome
CO1	Students should able to design and perform invitro pharmacological experiments using various isolated tissue preparation
CO2	Students should be able to quantitatively estimate the biological samples using isolated tissue preparation and interpret to calculate the PD2 and PA2 values
CO3	Students should able to understand the OECD guidelines and perform acute toxicity studies for safety evaluation and able to interpret the pharmacokinetic profile of the given drug
CO4	Students will able to understand cardiovascular responses using proper experimental techniques, drug efficacy and able to design & conduct clinical trails and ADR monitoring
CO5	students should able to understand the drug discovery process and able to develop a new through In silico techniques
MPL20	T Advanced Pharmacology-II[Theory Regular]
CO ID.	Course Outcome
CO1	Discuss the pathophysiology and pharmacotherapy of certain diseases
CO2	Explain the mechanism of drug actions at cellular and molecular level
CO3	Understand the adverse effects, contraindications and clinical uses of drugs used in treatment of diseases
MPL20	3T Principles of Drug Discovery [Theory   Regular ]
CO ID.	Course Outcome
CO1	Explain the various stages of drug discovery
CO2	Appreciate the importance of the role of genomics, proteomics and bioinformatics in drug discovery.

Semes	
CO5	Appreciate the importance of the role of computer aided drug design in drug discovery.
CO4	Explain various lead seeking method and lead optimization
CO3	Explain various targets, biomarkers and in vitro screening techniques for drug discovery.

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SETH GOVIND RAGHUNATH SABLE
COLLEGE OF PHARMACY, SASWAD
TAL. PURANDHAR, DIST, PUNE-412 301

# Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad Subjectwise Course Outcome - [M Pharm (Pharmacology) - 2021-22]

Semes	ter I
(MPL1	03T Pharmacological and Toxicological Screening Methods-I [ Theory   Regular ]
CO ID.	Course Outcome
CO1	Appraise the regulations and ethical requirement for the usage of experimental animals.
CO2	Describe the various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals
CO3	Describe the various newer screening methods involved in the drug discovery process
CO4	Appreciate and correlate the preclinical data to humans
MPAT1	01T Modern Pharmaceutical Analytical Techniques [Theory   Regular ]
CO ID.	Course Outcome
CO1	Understand Analytical techniques for identification, Characterization and quantification of drugs
CO2	To learn theoretical and practical skills of instrument handling and use
CO3	Understand Structural Elucidation of organic compounds using data of spectroscopic tools such as UV, IR, NMR, Mass spectrometer, HPLC
MPL10	2T Advanced Pharmacology-I [Theory   Regular ]
CO ID.	Course Outcome
CO1	Discuss the pathophysiology and pharmacotherapy of certain diseases
CO2	Explain the mechanism of drug actions at cellular and molecular level
CO3	Understand the adverse effects, contraindications and clinical uses of drugs used in treatment of diseases
MPL10	4T Cellular and Molecular Pharmacology [Theory   Regular ]
CO ID.	Course Outcome
CO1	Explain cellular structure and functions and cell regulation
CO2	Describe molecular and cellular cell signalling pathways & Principles and applications of genomic and proteomic tools
CO3	Principles , applications and recent advances in gene therapyPrinciples and applications of Pharmacogenomics
CO4	Explain the Principles and applications of proteomics science
CO5	Describe in detail Principles and applications of Immunotherapeutics &Describe Cell culture techniques and biosimilars
MPL10	5P Pharmacology Practical-I (Part-I and II ) [ Practical   Regular ]
CO ID.	Course Outcome
CO1	Students should able to design & analyze the given sample of drugs using spectroscopic, chromatographic, fluorimetry and flame photometry
CO2	Students should able to perform experiments for CNS related activities, diuretics and GI effects
CO3	Students should able to handle molecular techniques to understand molecular biology, including invitro cell culture techniques
CO4	Students should able to assess the genetic alteration using molecular techniques
Semest	ter III

MRM301T Research Methodology and Biostatistics [Theory   Regular ]	
CO ID.	Course Outcome
CO1	Develop the ability to apply the methods while working on a research project work
CO2	Describe the appropriate statistical methods required for a particular research design
CO3	Choose the appropriate research design and develop appropriate research hypothesis for a research project
CO4	Develop a appropriate framework for research studies

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