

KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	1
Course-	Human Anatomy and Physiology II – Theory I-yr	Code	BP201T	Semester	2
Course Instructors-	Mrs. Priya Bansal	Dr. Praveen K. Dixit		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Outline the anatomy and physiology of the Nervous system.	Analyze	Factual & Conceptual
CO2	Illustrate anatomy and physiology of Digestive System and energetics (ATP, Creatinine Phosphate).	Apply	Factual & Conceptual
CO3	Explore the structure and functions of Respiratory System and Urinary System.	Analyze	Factual & Conceptual
CO4	Demonstrate the anatomical and physiological aspects of the Endocrine System.	Apply	Factual & Conceptual
CO5	Explain the structural and functional aspects of Reproductive System and Genetics.	Analyze	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3					1		1	2		2
CO2	3					1		1	2		2
CO3	3					1		1	2		2
CO4	3					1		1	2		2
CO5	3					1		1	2		2
CO6											
PO Target	3.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.00	#DIV/0!	1.00	2.00	#DIV/0!	2.00

Priya Bansal
 Signature of Course Instructor (s):



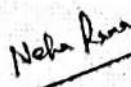
KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	1
Course-	Pharmaceutical Organic Chemistry I- Theory I-yr	Code	BP202T	Semester	2
Course Instructors-	Dr.Neha Rana	Ms. Shipra Singhal	Course Type-		Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Determine Classification, Nomenclature and Isomerism of Organic Compounds.	Apply	Factual & Conceptual
CO2	Apply mechanism of action of alkanes, alkenes and conjugated dienes addition reactions.	Apply	Factual & Conceptual
CO3	Examine the basics of stereochemistry, kinetics, reactivity order and uses of important alkyl halides and alcohols.	Apply	Factual & Conceptual
CO4	Illustrate the mechanism involved in name reactions and identification tests of carbonyl compounds.	Apply	Factual & Conceptual
CO5	Examine the chemistry and uses of carboxylic acids and amines.	Apply	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	1	1		1	1		1		1
CO2	3		1	1		1	1		1		1
CO3	3		1	1		1	1		1	1	1
CO4	3		1	1		1	1		1	1	1
CO5	3		1	1		1	1		1		1
PO Target	3.00	1.00	1.00	1.00	#DIV/0!	1.00	1.00	#DIV/0!	1.00	1.00	1.00

Signature of Course Instructor (s):




KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	1
Course-	Biochemistry – Theory I-yr	Code	BP203T	Semester	2
Course Instructors	Ms. Pragati Gupta	Dr. Neha Rana		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Apply the knowledge of the concept of biomolecules and bioenergetics	Apply	Factual, Conceptual
CO2	Explore the knowledge of carbohydrate metabolism and biological oxidation and underlying diseases.	Apply	Factual, Conceptual
CO3	Analyze the concepts of lipid and amino acid metabolism and their role in various diseases.	Analyze	Factual, Conceptual
CO4	Illustrate the concept of nucleic acid metabolism and transfer of genetic information.	Analyze	Factual, Conceptual
CO5	Classify various types of enzymes and their role as diagnostic and therapeutic applications	Analyze	Factual, Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	1	-	1	1	1	1	1	2
CO2	3	3	2	1	-	1	1	1	2	1	1
CO3	3	3	2	1	-	1	1	1	2	1	1
CO4	3	3	3	2	-	2	1	1	2	1	2
CO5	3	1	1	1	-	1	1	1	1	1	1
PO Target	3.00	2.40	2.00	1.20	-	1.20	1.00	1.00	1.60	1.00	1.40

Signature of Course Instructor (s): Pragati Gupta
Neha Rana



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	1
Course-	Pathophysiology – Theory I-yr	Code	BP204T	Semester	2
Course Instructors-	Mr.Himanshu Aggarwal	Mr.Praveen Kumar Dixit		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the basic mechanisms involved in the process of cell injury and inflammation	Understand	Factual & Conceptual
CO2	Summarize the pathological mechanisms involved in the development of cardiovascular, renal and respiratory systems.	Understand	Factual & Conceptual
CO3	Review the mechanisms of development of diseases associated with blood, endocrine, nervous and gastrointestinal system	Understand	Factual & Conceptual
CO4	Understand the development and progression of inflammatory diseases along with cancer.	Understand	Factual & Conceptual
CO5	Summarize the etiology and pathogenesis of infectious and sexually transmitted diseases.	Understand	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	2	1		2	1	1	3		3
CO2	3	1	2	1		2	1	1	3		3
CO3	3	1	2	1		2	1	1	3		3
CO4	3	1	2	1		2	1	1	3	1	3
CO5	3	1	2	1		2	1	1	3	1	3
PO Target	3.00	1.00	2.00	1.00	#DIV/0!	2.00	1.00	1.00	3.00	1.00	3.00

Signature of Course Instructor (s): Praveen



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.	Year	1
Course-	BP205T Computer Applications in Pharmacy –Theory I-yr	Semester	2
Course Instructors-	Dr. Garima Kapoor	Ms. Sakshi Garg	Course Type- Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the concept of number system and information systems.	Understand	Factual & Conceptual
CO2	Know about various web technologies and databases.	Understand	Factual & Conceptual
CO3	Understand the various types of application of computers in pharmacy.	Understand	Factual & Conceptual
CO4	Understand the objective, concept and impact of Bioinformatics.	Understand	Factual & Conceptual
CO5	Understand the application of computers in data analysis in Preclinical development	Understand	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	2	3	2	3	1	1	2	1	2	2	3
CO2	2	3	2	3	1	3	1	2	2	3	3
CO3	3	2	2	3	2	3	2	2	3	3	3
CO4	3	2	2	3	1	3	2	1	3	2	3
CO5	3	2	2	3	1	2	3	2	3	3	3
PO Target	2.60	2.40	2.00	3.00	1.20	2.40	2.00	1.60	2.60	2.60	3.00

Signature of Course Instructor (s):

Garima Kapoor

BoS Remarks:



KIET School of Pharmacy, KIET Group of Institutions

CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	1	
Course-	Environmental Sciences – Theory I-yr		Code	BP206T	Semester	2
Course Instructors-	MR. HARSH RASTOGI		MR. SANJEEV CHAUHAN		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Understand the multidisciplinary nature of environmental studies and role of an individual in conservation of natural resources.	Understand	Factual
CO2	Understand the concept of Ecosystem with various types.	Understand	Factual/conceptual
CO3	Illustrate the environmental pollution: Air pollution; Water pollution; Soil pollution	Remember	conceptual
CO4			
CO5			
CO6			

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	1	1	1	1		1	3	1	2	3	3
CO2	1	1	1	1		1	3	1	2	3	3
CO3	1	2	2	1		2	3	1	2	3	3
CO4											
CO5											
CO6											
PO Target	1.00	1.33	1.33	1.00	#DIV/0!	1.33	3.00	1.00	2.00	3.00	3.00

Signature of Course Instructor (s): *Harsh*

Harsh



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	2	
Course-	Human Anatomy and Physiology II- Practical	Code	BP287P	Semester	2	
Course Instructors-	Mr.Praveen K.Dixit	Ms.Priya Bansal	Course Type-		Lab	

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the anatomy and physiology of CNS, Digestive system, Respiratory system, urinary system, endocrine system and reproductive system using models and charts.	Understand	Factual & Conceptual
CO2	Illustrate the practical aspects related to reflex activity, body temperature recording, lung capacities, BMI and their importance.	Apply	Factual & Procedural
CO3	Understand the different mechanisms of responses related to sense organs and nervous system.	Understand	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1	1	2	1			1	2		2
CO2	3	1	1	2	1			1	2		2
CO3	3	1	1	2	1			1	2		2
PO Target	3.00	1.00	1.00	2.00	1.00	#DIV/0!	#DIV/0!	1.00	2.00	#DIV/0!	2.00

Signature of Course Instructor (s): Praveen



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	1	
Course-	Pharmaceutical Organic Chemistry I- Practical		Code	BP208P	Semester	2
Course Instructors-	Dr. Neha Rana		Ms. Shipra Singhal		Course Type-	Lab

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Apply the knowledge of equipment, apparatus and reagents used for qualitative analysis of organic compounds.	Apply	C & P
CO2	Analyze and identify different organic compounds on the basis of chemical test.	Apply	C & P
CO3	Apply the knowledge to synthesize organic compounds and analyze them.	Apply	C & P
CO4	Examine the various mechanism and applications for synthesis of organic compounds.	Apply	C & P

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	3	3	3		2	2		2	2	3
CO2	3	3	3	3		2	2		2	2	3
CO3	3	3	3	3		3	2		2	3	3
CO4	3	3	3	3		3	2		2	3	3
PO Target	3.00	3.00	3.00	3.00	#DIV/0!	2.50	2.00	#DIV/0!	2.00	2.50	3.00

Signature of Course Instructor (s):

Neha Rana



OBE- 2022-23e

KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	1	
Course-	Biochemistry- Practical		Code	BP209P	Semester	2
Course Instructors	Dr. Neha Rana			Course Type-	Lab	

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Analyze different carbohydrates, proteins and abnormal constituents of urine.	Analyze	Procedural & Conceptual
CO2	Determination of blood creatinine, salivary amylase, blood sugar and serum total cholesterol.	Analyze	Procedural & Conceptual
CO3	Quantitative analysis of reducing sugars (DNSA method) and proteins.	Analyze	Procedural & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	1	1		1	1	1	1	1	1
CO2	3	3	2	2	1	1	2	1	2	2	1
CO3	3	3	2	2	1	1	2	1	2	2	1
PO Target	3.00	3.00	1.67	1.67	1.00	1.00	1.67	1.00	1.67	1.67	1.00

Signature of Course Instructor (s):

Neha Rana

KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	1	
Course-	Computer Applications In Pharmacy- Practical		Code	BP210P	Semester	2
Course Instructors-	Dr. Amit Gupta			Course Type-	Lab	

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Apply the Knowledge of computing fundamentals to pharmaceutical applications for any given requirement.	Apply	F & C
CO2	Apply efficiently the contemporary IT tools (web technologies and databases) to all pharmaceutical related activities.	Apply	F & C
CO3	Apply the various application of databases in pharmacy.	Apply	F & C

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	3		2	1		2				2
CO2	2	3	2	2	1				2		2
CO3	3	3	2	2	2		2		3		1
PO Target	2.67	3.00	2.00	2.00	1.33	#DIV/0!	2.00	#DIV/0!	2.50	#DIV/0!	1.67

Signature of Course Instructor (s):

Naba Rana



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	2	
Course-	Pharmaceutical Organic Chemistry III –Theory II-yr	Code	BP401T	Semester	4	
Course Instructors	Dr. Abhay Bhardwaj		Mr. Surya Prakash		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Explain the structural features and stereochemistry of chemical compounds.	Understand	Conceptual
CO2	Infer the nomenclature and structure of chemical compounds.	Understand	Conceptual
CO3	Explore the basics chemistry nomenclature and classification of heterocyclic compounds.	Apply	Conceptual
CO4	Illustrate the synthesis, reactions and medicinal uses of heterocyclic compounds.	Apply	Conceptual, Procedural
CO5	Demonstrate the reactions and importance of metals.	Apply	Conceptual
CO6			

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1	2	3	-	2	1	-	2	1	3
CO2	3	1	2	2	-	2	1	-	2	1	3
CO3	3	1	3	3	-	2	1	-	3	1	3
CO4	3	1	2	3	-	2	1	-	2	1	3
CO5	3	1	2	3	-	2	1	-	2	1	3
CO6								-	2	1	3
PO Target	3.00	1.00	2.20	2.80	#DIV/0!	2.00	1.00	#DIV/0!	2.20	1.00	3.00

Signature of Course Instructor (s): *Abhay*



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm			Year	2	
Course-	Pharmaceutical Organic Chemistry I- Practical		Code	BP402T	Semester	4
Course Instructors-	SHIPRA SINGHAL		PARUL GROVER		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand basics of medicinal chemistry, physicochemical and stereochemical properties in relation to drug design and drug metabolism.	Understand	Factual & Conceptual
CO2	Understand chemistry of drugs acting on Adrenergic system.	Understand	Factual & Conceptual
CO3	Understand chemistry of drugs acting on Cholinergic system.	Understand	Factual & Conceptual
CO4	Illustrate chemistry of drugs acting on CNS such as sedative, hypnotics, antipsychotics and anticonvulsants.	Apply	Factual & Conceptual
CO5	Illustrate the chemistry of drugs acting on CNS such as General anesthetics, narcotic & non-narcotic analgesics and anti-inflammatory agents.	Apply	Factual & Conceptual
CO6			

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	1			1	2		2		3
CO2	3	1	1			1	2		2		3
CO3	3	1	1			1	2		2		3
CO4	3	1	1			1	2		2		3
CO5	3	1	1			1	2		2		3
CO6											
PO Target	3.00	1.00	1.00	#DIV/0!	#DIV/0!	1.00	2.00	#DIV/0!	2.00	#DIV/0!	3.00

Signature of Course Instructor (s):

Shipra

Parul



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	2	
Course-	Physical Pharmaceutics II – Theory II-yr	Code	BP403T	Semester	4	
Course Instructors	Mr. Debaprasad Ghosh	Ms. Sakshi Garg		Course Type-	Theory	

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the types, general characteristics, and effect of various factors on Colloidal dispersions.	Understand	Procedural
CO2	Identify the rheological behaviour of fluids and the principles of deformation of solids.	Analyze	Procedural
CO3	Analyse the theories, types, various properties, and stability of Coarse dispersions like suspensions and emulsions.	Analyze	Procedural
CO4	Analyze various aspects of micrometrics.	Analyze	Procedural
CO5	Analyze the effects of kinetics, degradation factors and common reactions on the stability of drugs including accelerated stability studies and their prevention.	Analyze	Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2			1	1	1		2
CO2	3	2	2	3			1	1	1		2
CO3	3	2	2	2			1	1	1		2
CO4	3	2	2	3			1	1	1		2
CO5	3	2	2	2			1	1	1		2
PO Target	3.00	2.00	2.00	2.40	#DIV/0!	#DIV/0!	1.00	1.00	1.00	#DIV/0!	2.00

Signature of Course Instructor (s):




KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	2	
Course-	Pharmacology I – Theory II-yr		Code	BP404T	Semester	4
Course Instructors-	Dr. Abhishek Kumar		Mr. Kapil Sachan		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the basics of pharmacology and Pharmacokinetics	Understand	Factual & Conceptual
CO2	Demonstrate the basics of Pharmacodynamics and drug interactions	Apply	Factual & Conceptual
CO3	Illustrate the pharmacology of drugs acting on peripheral nervous system	Apply	Factual & Conceptual
CO4	Explain the pharmacology of drugs acting on neurohumoral transmission related disorders	Analyze	Factual & Conceptual
CO5	Analyze the pharmacology of drugs acting on Psychopharmacological disorders	Analyze	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3		1	1		2		2	3	1	3
CO2	3		1	1		2		2	3	1	3
CO3	3		1	1		2		2	3	1	3
CO4	3		1	1		2		2	3	1	3
CO5	3	1	1	1		2	1	2	3	1	3
CO6	3	1	2	1		2	1	2	1	1	3
PO Target	3.00	1.00	1.17	1.00	#DIV/0!	2.00	1.00	2.00	2.67	1.00	3.00

Signature of Course Instructor (s):

Abhishek

Kapil



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	2
Course-	BP405T Pharmacognosy I – Theory II-yr	Code	BP405T	Semester	4
Course Instructors-	Dr. Richa Goel			Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Illustrate the sources of drugs, classification of crude drugs and justify the quality control of herbal drugs.	Analyze	Factual, Conceptual & Procedural
CO2	Acquire the knowledge of the techniques used for cultivation and production of crude drugs and outline conservation of medicinal plants.	Apply	Factual, Conceptual & Procedural
CO3	Illustrate the concepts of Plant Tissue Culture and to describe properties of edible vaccines.	Analyze	Conceptual & Procedural
CO4	Explore the working of various traditional systems of medicine and to summarize properties of various secondary metabolites.	Understand	Factual & Conceptual
CO5	Attain the knowledge of the properties and applications of plant fibers, hallucinogens, carbohydrates, lipids, proteins, enzymes and marine products.	Apply	Factual & Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3			3							2
CO2	3		2								2
CO3	3		2	3							2
CO4	3		2	3							2
CO5	3	1	2	3							2
PO Target	3.00	1.00	2.00	3.00							2.00

Signature of Course Instructor (s):

Richa Goel



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	2
Course-	Medicinal Chemistry I- Practical	Code	BP406P	Semester	4
Course Instructors	Dr. Parul Grover			Course Type-	Lab

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Synthesize drugs and metabolites.	Create	Conceptual and Procedural
CO2	Determine the assay of drugs.	Apply	Conceptual and Procedural
CO3	Determine the partition coefficient of drugs.	Apply	Conceptual and Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	3	3	1	2	1	1	1	1	3
CO2	3	1	3	3	1	2	1	1	1	1	3
CO3	3	1	3	3	1	2	1	1	1	1	3
PO Target	3.00	1.00	3.00	3.00	1.00	2.00	1.00	1.00	1.00	1.00	3.00

Signature of Course Instructor (s):

Parul

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KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	2
Course-	Physical Pharmaceutics II- Practical	Code	BP407P	Semester	4
Course Instructors	Ms. Sakshi Garg				Course Type- Lab

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Evaluate Particle size, Particle size distribution, and derived properties of the powder.	Evaluate	Factual, Conceptual, Procedural
CO2	Calculate the viscosity of viscous samples using different methods.	Apply	Factual, Conceptual, Procedural
CO3	Evaluate the prepared suspension and emulsion formulations.	Evaluate	Factual, Conceptual, Procedural
CO4	Evaluate the kinetics of chemical reactions with stability studies	Evaluate	Factual, Conceptual, Procedural
CO5			
CO6			

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	2	2	2	1	1	1	1	1	1	2
CO2	3	2	2	2	1	1	1	1	1	1	2
CO3	3	2	2	2	1	1	1	1	1	1	2
CO4	3	2	2	2	1	1	1	1	1	1	2
CO5											
CO6											
PO Target	3.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00

Signature of Course Instructor (s):




KIET School of Pharmacy, KIET Group of Institutions
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Program-	B. Pharm.			Year	2	
Course-	Pharmacology I - Theory II-yr		Code	BP408P	Semester	4
Course Instructors	Mr. KAPIL SACHAN			Course Type-	Lab	

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Understand the instruments and laboratory animals as per CPCSEA guidelines used in experimental pharmacology.	Understand	Conceptual
CO2	Understand the different routes of drug administration in mice/rat and various laboratory techniques used for animal studies.	Understand	Conceptual
CO3	Understand the effect of enzyme inducers on sleeping time in mice and effect of drugs on ciliary motility in frog.	Understand	Conceptual
CO4	Understand the role of muscle various drugs acting on CNS and PNS in experimental pharmacology.	Understand	Conceptual
CO5	Apply the concept of anti catatonic, anxiolytic activity and study of local anaesthetic agents in rats.	Apply	Conceptual & Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	2	2		2	2	2	3	2	3
CO2	3	1	2	2		2	2	2	3	2	3
CO3	3	1	2	2		2	2	2	3	2	3
CO4	3	1	2	2		2	2	2	3	2	3
CO5	3	1	2	2		2	2	2	3	2	3
PO Target	3.00	1.00	2.00	2.00	#DIV/0!	2.00	2.00	2.00	3.00	2.00	3.00

Signature of Course Instructor (s):




KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	2	
Course-	Pharmacognosy I- Practical		Code	BP409P	Semester	4
Course Instructors	Dr. Deepti Katiyar, Dr. Richa Goel, Ms. Pragati Gupta			Course Type-	Lab	

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Describe the tools used in quantitative microscopy and understand the concepts behind the procedures used	Understand	C/P
CO2	Evaluate the crude drugs on the basis of WHO guidelines	Evaluate	C/P
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters	Analyze	C/P

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2		2					2
CO2	3	2	2	2		2					2
CO3	3	2	2	2		2					2
PO Target	3.00	2.00	2.00	2.00		2.00					2.00

Course Instructor (s):

Deepti



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	2
Course-	Biomedical waste management II-yr	Code	BP412	Semester	4
Course Instructors	Ms. Riya Rastogi			Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Generalise the fundamentals of hazardous waste and also the types and sources of hazardous as well as biomedical waste .	Understand	Factual / Conceptual
CO2	Acquire the knowledge of health impacts of various types of hazards and biomedical wastes.	Apply	Factual / Conceptual
CO3	Attain the knowledge about the storage , collection and transport of hazards and biomedical wastes , and also to study about the guidelines used for handling and segregation of wastes .	Apply	Factual / Conceptual
CO4	Determine the waste processing techniques which includes incineration , solidification and stabilization of hazardous wastes .	Apply	Factual / Conceptual
CO5	Illustrate the basics of the waste disposal options and also a detailed study on the disposal in landfills and also to learn about landfill remediation .	Apply	Factual / Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	1	1	3	2	1	1	1		1	3	2
CO2	1		1		1	1	2	1	2	3	2
CO3	1	1	2	1	1	1	3	1	1	1	1
CO4	1	2	2	2	1	1		1	1	2	1
CO5		2	1	2		1	1	2	1	2	3
PO Target	1.00	1.50	1.80	1.75	1.00	1.00	1.75	1.25	1.20	2.20	1.80

Signature of Course Instructor (s): Riya



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	3	
Course-	Medicinal Chemistry III – Theory III-yr		Code	BP601T	Semester	6
Course Instructors-	Dr. Valshall M Patil		Dr Garima		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Understand the approach of classification, nomenclature, synthesis, stereochemistry, structure activity relationship and uses of antibiotics.	Understand	Conceptual
CO2	Apply the concept of nomenclature, stereochemistry, structure activity relationship, chemical degradation, classification of important products of Macrolide, Antimalarials, and apply basic approach of Prodrugs.	Apply	Conceptual
CO3	Analyze the various aspects of chemotherapy of Anti-tubercular Agents, Urinary tract anti-infective agents and Antiviral agents.	Analyze	Conceptual
CO4	Illustrate the core principles of Chemotherapy of Antifungal agents, Anti-protozoal Agents, Sulphonamides and Sulfones, Folate reductase inhibitors and Anthelmintics.	Apply	Conceptual
CO5	Analyze the idea of Drug Design, and Combinatorial Chemistry.	Analyze	Conceptual
CO6			

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	1	1	1	1		1		1		1	1
CO2	1	1	2	2		2		2		1	1
CO3	1	1	2	2		2		2		1	1
CO4	1	1	1	1		2		2		1	1
CO5	1	1	1	1		1		2		1	1
CO6											
PO Target	1.00	1.00	1.40	1.40	#DIV/0!	1.60	#DIV/0!	1.80	#DIV/0!	1.00	1.00

Signature of Course Instructor (s): Valshall M Patil




KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	3	
Course-	Pharmacology III – Theory III-yr		Code	BP602T	Semester	6
Course Instructors	Dr. Shardendu K Mishra		Mr. Himanshu Aggarwal		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the pharmacology of the drugs used in respiratory and GIT disorders.	Understand	Conceptual
CO2	Explain the utility of antimicrobial agents used for curing infections.	Apply	Conceptual
CO3	Illustrate the various mechanisms by which anti-microbial agents act and their applications in infection management.	Apply	Conceptual
CO4	Express the pharmacological profiles of chemotherapeutic agents and immunomodulators.	Apply	Conceptual
CO5	Apply the principles of toxicology and chrono pharmacology.	Apply	Conceptual & Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	2	2		2	1	1	3	2	3
CO2	3	1	2	2		2	1	1	3	2	3
CO3	3	1	2	2		2	1	1	3	2	3
CO4	3	1	2	2		2	1	1	3	2	3
CO5	3	1	2	2		2	1	1	3	2	3
PO Target	3.00	1.00	2.00	2.00		2.00	1.00	1.00	3.00	2.00	3.00

Signature of Course Instructor (s):

Nimande



KIET School of Pharmacy, KIET Group of Institutions

CO Statements and CO- PO Mapping

Program-	B. Pharm.				Year	3	
Course-	Herbal Drug Technology – Theory III-yr			Code	BP603T	Semester	6
Course Instructors-	Mr. Harsh Rastogi		Mr. Balwan Singh		Course Type-	Theory	

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Generalize the Indian system of medicines and fundamentals of traditional herbal raw materials from its cultivation to collection with the help of biodynamic agriculture.	Understand	Factual
CO2	Analyze the demand and need of nutraceuticals with the help of herbal drug and herbal food interactions.	Analyze	Conceptual
CO3	Apply various herbal drug cosmetics and formulations with the study of their excipients.	Apply	Procedural
CO4	Apply the National and International regulatory guidelines for the assessment of herbal drugs and patenting.	Apply	Procedural
CO5	Operate the Current Good Manufacturing Practices(cGMP) in herbal drug industry.	Understand	Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	2		1	2		2		1	2	3	3
CO2	2					2		1	2	3	3
CO3	2		1	2		1		1	2	3	3
CO4	2	1	1			2	2	3	3	3	3
CO5	2	1	1			2	2	3	3	3	3
PO Target	2.00	1.00	1.00	2.00		1.80	2.00	1.80	2.40	3.00	3.00

Bsingh
Signature of Course Instructor (s):



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	
Course-	Biopharmaceutics and Pharmacokinetics – Theory III-yr			Code	BP604T
Course Instructors	Mr. Sanjeev Chauhan		Dr. Ashu Mittal		Semester
					6
					Course Type-
					Theory

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	1. Understand the mechanisms of drug absorption through the gastrointestinal tract (GIT), including factors influencing absorption and the impact of non-peroral extra-vascular routes on drug absorption, while also evaluating the distribution and tissue permeability of drugs, their binding properties, apparent volume of distribution, and the factors that affect protein-drug binding, and analyze the kinetics of protein binding as well as the clinical significance of protein binding of drugs.	Understand	Factual, Conceptual
CO2	Analyze the processes of drug elimination, including drug metabolism and the exploration of metabolic pathways, renal excretion of drugs, factors influencing renal excretion, renal clearance, and non-renal routes of drug excretion, while also evaluating the concepts of bioavailability and bioequivalence, including their definitions and objectives, assessment methods for measuring bioavailability, in-vitro drug dissolution models, in-vitro-in-vivo correlations, bioequivalence studies, and strategies to enhance the dissolution rates and bioavailability of poorly soluble drugs.	Analyze	Conceptual, Procedural
CO3	Apply the principles of pharmacokinetics, including understanding the definition and introduction to pharmacokinetics, different compartment models, non-compartment models, and physiological models, with a focus on the one compartment open model, and its application in various modes of drug administration such as intravenous injection (bolus), intravenous infusion, and extra vascular administrations, while analyzing and interpreting pharmacokinetic parameters such as KE, t _{1/2} , V _d , AUC, K _a , Cl _t , and CLR, their definitions, methods of elimination, and comprehending their significance and practical application in the	Apply	Conceptual, Procedural
CO4	Illustrate the principles of pharmacokinetics to comprehend and apply the concepts related to multicompartment models, specifically the two-compartment open model, including the kinetics of multiple dosing, steady-state drug levels, and the calculation of loading and maintenance doses, while recognizing their significance in clinical settings and demonstrating the ability to analyze and interpret relevant pharmacokinetic data.	Analyze	Conceptual
CO5	Demonstrate a comprehensive understanding of nonlinear pharmacokinetics, including the introduction to this concept, identification of factors that contribute to non-linearity in drug pharmacokinetics, and the application of the Michaelis-Menten method for estimating parameters, illustrated through the explanation and examples of drugs exhibiting non-linear pharmacokinetic behavior, while critically evaluating the implications of non-linearity in drug dosing and therapeutic outcomes.	Apply	Conceptual, Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	1			1	1	1		1	1
CO2	3	1	3	1		1		1			2
CO3	3	1	1	1		1		1			1
CO4	3	1	3			1		1			1
CO5	3	1	1			1	1	1		1	1
PO Target	3.00	1.00	1.80	1.00	#DIV/0!	1.00	1.00	1.00	#DIV/0!	1.00	1.20

Signature of Course Instructor (s):

[Signature]



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	3
Course-	Pharmaceutical Biotechnology-Theory III-yr	Code	BP605T	Semester	6
Course Instructors	DR. Monika Kaurav			Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Explain biotechnology and its importance in pharmaceuticals with applicable methodologies	Understand	Conceptual, Factual and Procedural
CO2	Analyze the recombinant DNA technology and its application in pharmaceuticals production.	Analyze	Conceptual, Factual and Procedural
CO3	Demonstrate immunity and various immunological products and their production methods.	Apply	Conceptual, Factual and Procedural
CO4	Analyze various immune assay techniques for determination of immunological products.	Analyze	Conceptual, Factual and Procedural
CO5	Apply different fermentation techniques in production of various fermentation products.	Apply	Conceptual, Factual and Procedural

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1			1	1	2	1	1	1	1
CO2	3	1	1		1	1	2		1	1	1
CO3	3	1	1		1	1	2	1	1	1	1
CO4	3	1	2		1	1	2	1	1	1	1
CO5	3	1	1		1	1	2	1	1	1	1
PO Target	3.00	1.00	1.25	#DIV/0!	1.00	1.00	2.00	1.00	1.00	1.00	1.00

Signature of Course Instructor (s): MONIKA KAURAV




KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	3
Course-	Quality Assurance- Theory III-yr	Code	BP604T	Semester	6
Course Instructors	Surbhi Kamboj	Dr. Lakshmi		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand major guidelines and principles related to Quality Assurance and Quality Management, Total Quality Management (TQM), ICH Guidelines, Quality by design (QbD), ISO 9000 & ISO14000 and NABL accreditation and Good Laboratory Practices (GLP)	Understand	Factual, Conceptual, Procedural
CO2	Able to acquire knowledge of organization and personnel, premises, equipments and raw materials related issues in pharmaceutical industry.	Apply	Factual, Conceptual, Procedural
CO3	Select proper procedure for quality control of containers, rubber closures, secondary packing materials and calibration and qualification of commonly used equipments e.g. pH meter and UV spectrophotometers	Evaluate	Factual, Conceptual, Procedural
CO4	Relate various documents e.g. Batch Formula Record, Master Formula Record, SOP, Quality audit, Quality Review and Quality documentation, Reports and documents, distribution records.	Analyze	Factual, Conceptual, Procedural
CO5	Apply general principles of analytical method Validation, good warehousing practice, materials management, definition and general principles of calibration, qualification and validation, complaints and evaluation of complaints, Handling of return good, recalling and waste disposal.	Apply	Factual, Conceptual, Procedural

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1			1	1	2	1	2	1	1
CO2	3	1	1		1	1	2		2	1	1
CO3	3	1	1		1	1	2	1	2	1	1
CO4	3	1	2		1	1	2	1	2	1	1
CO5	3	1	1		1	1	2	1	2	1	1
PO Target	3.00	1.00	1.25	#DIV/0!	1.00	1.00	2.00	1.00	2.00	1.00	1.00

Signature of Course Instructor (s):




KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.		Year	3
Course-	BP607P Medicinal Chemistry III- Practical		Semester	6
Course Instructors	Dr. Garima Kapoor	Dr. Valsali M. Patil	Course Type-	Lab

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Synthesize different molecules.	Apply	C
CO2	Analyze the concept of assay of different drugs.	Analyze	C
CO3	Apply the aspects of Chem Draw and use different online softwares to study ADME activity.	Apply	F/C

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	1	2	1	1	1	2	1	1	2	1	1
CO2	2	1	1	2	1	2	1	2	1	2	1
CO3	1	1	2	2	1	1	1	1	1	2	1
PO Target	1.33	1.33	1.33	1.67	1.00	1.67	1.00	1.33	1.33	1.67	1.00

Signature of Course Instructor (s)

Garima Kapoor

BoS Remarks:

10/2



KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	3	
Course-	Pharmacology III- Practical		Code	BP608P	Semester	6
Course Instructors-	Dr. Shardendu Kumar Mishra		Mr. Himanshu Aggarwal		Course Type-	Lab

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Apply the methods for dose calculation for experimental animals.	Apply	Conceptual and Procedural
CO2	Apply the knowledge of experiment design and process by experimental pharmacology simulation software.	Apply	Conceptual and Procedural
CO3	Understand the method of bioassay on different living tissue.	Understand	Conceptual and Procedural
CO4	Understand the method of biochemical, pharmacokinetic analysis and different toxicity studies.	Understand	Conceptual
CO5	Understand the biostatistical method of data analysis.	Understand	Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	3	1	1	2	2	1	1	1	3
CO2	3	2	3	1	1	2	2	1	1	1	3
CO3	3	2	3	1	1	2	2	1	1	1	3
CO4	3	2	3	1	1	2	2	1	1	1	3
CO5	3	2	3	1	1	2	2	1	1	1	3
CO6											
PO Target	3.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	3.00

[Signature]
 Signature of Course Instructor (s):



OBE- 2022-23c

KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	3	
Course-	Herbal Drug Technology- Practical		Code	BP609P	Semester	6
Course Instructors	Mr. Harsh Rastogi		Mr. Bahwan Singh		Course Type-	Lab

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Determine various phytochemical screening of different group drugs.	Evaluate	Conceptual, Procedural
CO2	Prepare various herbal dosage forms.	Apply	Conceptual, Procedural
CO3	Evaluate various herbal dosage forms.	Evaluate	Conceptual, Procedural
CO4	Standardization of various marketed ayurvedic preparations.	Apply	Conceptual, Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	2						1	2	1	3
CO2	3	2						1	1	2	3
CO3	3	2						1	2	3	3
CO4	3	2						3	1	1	3
PO Target	3.00	2.00						1.00	1.80	2.00	3.00

B. Singh
 Signature of Course Instructor (s):



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	3
Course-	Industrial Training	Code	BP610P	Semester	6
Course Instructors-	Mr. Debaprasad Ghosh	Course Type-			Lab

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand how an Industry or an approved research laboratory function and their sections and departments.	Understand	Factual, Conceptual
CO2	Outline the different roles and responsibilities inside an industry or an approved research laboratory.	Analyze	Factual, Conceptual
CO3	Handle different equipments that are being used inside an industry or an approved research laboratory.	Apply	Conceptual, Procedural
CO4	Understand the approvals, rules and regulations related with an industry or an approved research laboratory.	Understand	Factual, Conceptual
CO5	Acquire knowledge about professionalism, methods of official communications inside an organization and its responsibilities towards the environment and the society.	Apply	Factual, Conceptual and Procedural

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	3	2	1	1	1	-	-	2
CO2	3	3	3	1	2	2	2	1	1	-	2
CO3	3	2	2	3	1	1	-	-	-	-	2
CO4	3	2	2	1	1	1	2	1	1	2	2
CO5	1	2	2	1	3	2	1	2	2	2	2
PO Target	2.60	2.40	2.40	1.80	1.80	1.40	1.50	1.25	1.33	2.00	2.00

Signature of Course Instructor (s):



Session- 2021-22 Even semester

Program-B.Pharm

Semester-8th

Course-BIOSTATISTICS AND RESEARCH METHODOLOGY Course Code-BP801T

Course Instructors-Mr. Pankaj

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Interpret the basic concepts of biostatistics and general research methodology	Understand	Conceptual, and Procedural
CO2	Explain the appropriate statistical methods required for a particular research design	Analyze	Conceptual, and Procedural
CO3	Adapt the appropriate research design and develop appropriate research hypothesis for a research project	Apply	Conceptual, and Procedural
CO4	Evaluate the methods while working on a research project work	Evaluate	Conceptual, Factual and Procedural
CO5	Explain the various types of research design and create an appropriate framework for research studies	Analyze	Conceptual and Factual

Mapping of COs with POs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	1	1	3	1	-	-	-	1	1	-	-
CO2	1	2	3	2	1	-	-	1	1	-	-
CO3	1	2	3	2	1	1	1	1	2	1	1
CO4	1	1	3	3	3	-	-	1	1	-	1
CO5	1	-	3	3	2	-	-	-	1	-	-
PO Target	1.00	1.50	3.00	2.20	1.75	1.00	1.00	1.00	1.20	1.00	1.00

Signature of CO- Coordinator

Pankaj



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	4
Course-	Social and Preventive Pharmacy IV-yr	Code	BP802T	Semester	8
Course Instructors-	Ms. VIDHU SAXENA	Dr. SHEENA MENTA		Course Type-	Theory

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Examine the various concepts of health and diseases with reference to public health	Apply 3	Conceptual, Factual
CO2	Assess the general principles for prevention and control of various diseases in light of social and preventive medicine	Evaluate 5	Conceptual, Factual and Procedural
CO3	Outline the important attributes of various National Health Programmes in context with its objectives, functioning and outcomes	Analyze 4	Conceptual, Factual and Procedural
CO4	Analyze various National Health Programme and role of WHO in Indian health program in context with public health	Analyze 4	Conceptual, Factual and Procedural
CO5	Determine the role of community services in rural, urban and school health	Apply 3	Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	3	1	1	3	3	3	3	1	3
CO2	3	3	3	1	-	3	3	3	3	1	3
CO3	3	3	2	1	-	3	3	3	3	1	3
CO4	3	3	2	1	-	3	3	3	3	1	3
CO5	3	1	2	1	-	3	3	3	3	1	3
PO Target	3.00	2.40	2.40	1.00	1.00	3.00	3.00	3.00	3.00	1.00	3.00

Signature of Course Instructor (s):



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	4
Course-	Pharma Marketing Management* IV-yr	Code	BP803ET	Semester	8
Course Instructors	Ms. Shikha Kaushik				Course Type- Elective

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the basic concepts of marketing and their application in pharmaceutical marketing.	Apply	Factual/Conceptual
CO2	Illustrate product management in the pharmaceutical industry.	Apply	Factual/Conceptual
CO3	Analyze various promotional techniques for pharmaceutical products.	Analyze	Conceptual/Procedural
CO4	Apply knowledge about various pharmaceutical marketing channels.	Apply	Factual/Conceptual
CO5	Demonstrate the objectives and importance of price management in the pharmaceutical industry.	Apply	Factual/Conceptual

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2	3	3	1	3	3	2	2	3	3	2
CO2	3	3	2	3	3	3	2	3	3	3	3
CO3	2	3	3	3	1	3	3	3	3	2	3
CO4	2	3	3	2	3	2	3	3	3	3	3
CO5	3	2	3	3	2	3	3	3	3	2	3
PO Target	2.40	2.80	2.80	2.40	2.40	2.80	2.60	2.80	3.00	2.60	2.80

Signature of Course Instructor (s):




KIET School of Pharmacy, KIET Group of Institutions

CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	4	
Course-	Pharmacovigilance* IV-yr		Code	BF805ET	Semester	8
Course Instructors	Dr. Vinay Kumar			Course Type-	Elective	

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Understand the importance of safety monitoring of drugs with emphasis on causality assessment of different classes of adverse drug reactions	Understand	Factual and Conceptual
CO2	Understand the drug and disease classification, various drug dictionaries, and coding in pharmacovigilance with examples	Understand	Factual and Conceptual
CO3	Apply the pharmacovigilance methods with vaccine pharmacovigilance and communication in pharmacovigilance	Apply	Factual and Conceptual
CO4	Illustrate the generation of safety data in preclinical, clinical, and post-approval phases and also study ICH	Analyze	Factual and Conceptual
CO5	Analyze genetics related adverse drug reactions and safety evaluation of drugs in special population	Analyze	Factual and Conceptual
CO6			

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	1	2			1	2	2		3
CO2	3		1	2			1	2	2		3
CO3	3	1	1	2		1	1	2	2		3
CO4	3		1	2		1	1	2	2	1	3
CO5	3			2		1	1	2	2	1	3
CO6											
PO Target	3.00	1.00	1.00	2.00	NDIV/OI	1.00	1.00	2.00	2.00	1.00	3.00

Signature of Course Instructor (s): Vinay Kumar

Digitally signed by
Vinay Kumar
Date: 2023.03.15
19:31:14 +05'30'



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KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

OBE- 2022-23c

Program-	B. Pharm.			Year	4	
Course-	Quality Control and Standardization of Herbal* IV-yr	Code	BP806ET	Semester	8	
Course Instructors-	Dr. Kiran Sharma			Course Type-	Theory	

CO No.	Statement of Course Outcome	BL	KC
	After completion of the course, the student will be able to		
CO1	Understand the basic concepts of WHO guidelines for quality control of herbal drugs	Understand	Facutal
CO2	Describe the application and significance of Quality assurance in herbal drug industry	Apply	Conceptual
CO3	Determine the appropriate regulatory approval process and their registration in market.	Apply	Facutal
CO4	Enhance the ability to analyze EU and ICH guidelines for quality control of herbal drugs	Create	Conceptual
CO5	Understand the various types of guidelines on safety monitoring of herbal medicines	Understand	Facutal
CO6			

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	3	2		1	2	1	1	1	3
CO2	3	2	2	1		2	2	1	2	1	3
CO3	3	2	2	2		2	2	1	2	1	3
CO4	3	1	3	3			2	1	1	1	3
CO5	3	1	2	2			2	1	2	1	3
CO6											
PO Target	3.00	1.40	2.40	2.00		1.67	2.00	1.00	1.60	1.00	3.00

Signature of Course Instructor



KIET School of Pharmacy, KIET Group of Institutions

CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	4	
Course-	Computer Aided Drug Design* IV-yr	Code	BP807ET	Semester	8	
Course Instructors-	Surya Prakash			Course Type-	Elective	

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the basic concepts of CADD and rational approaches to drug design.	Apply	Factual
CO2	Illustrate QSAR, descriptors and various approaches.	Apply	Conceptual
CO3	Understand and analyze virtual screening techniques and molecular docking.	Analyze	Conceptual
CO4	Acquire knowledge about role of bioinformatics and cheminformatics in pharmaceutical drug discovery.	Apply	Conceptual
CO5	Demonstrate the objectives and importance of molecular mechanics and quantum mechanics in drug discovery.	Apply	Procedural
CO6			

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2	3	3	1	3	3	2	2	3	3	2
CO2	3	3	2	3	3	3	2	3	3	3	3
CO3	2	3	3	3	1	3	3	3	3	2	3
CO4	2	3	3	2	3	2	3	3	3	3	3
CO5	3	2	3	3	2	3	3	3	3	2	3
CO6											
PO Target	2.40	2.80	2.80	2.40	2.40	2.80	2.60	2.80	3.00	2.60	2.80

Signature of Course Instructor (s):

Surya Prakash



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KIET School of Pharmacy, KIET Group of Institutions
CO Statements and CO- PO Mapping

Program-	B. Pharm.			Year	IV (FINAL)	
Course	Cosmetic Sciences (Theory)	Code	BP 809 ET	Semester	Semester VIII	
Course Instructors-	Prof.(Dr.) N. G. Raghavendra Rao			Course Type-	Theory	

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Illustrate the classification and applications of the cosmetic product; different excipients used to manufacture cosmetic products; basic structures of skin, hair, and problems associated with oral cavity	Apply	Conceptual, Factual, and Procedural
CO2	Explain the skin care products, antiperspirants, deodorants, and hair care products.	Analyze	Conceptual, Factual, and Procedural
CO3	Demonstrate the role of herbs in cosmetics, analytical cosmetics.	Apply	Conceptual, Factual, and Procedural
CO4	Analyze the principles of cosmetic evaluation.	Analyze	Conceptual, Factual, and Procedural
CO5	Apply the cosmetic problems associated with Hair and scalp and skin.	Apply	Conceptual, Factual, and Procedural

Mapping of COs with POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1	1	1	1	1	1	1	1	1	1
CO2	3	1	2	1	2	2	2	1	2	1	1
CO3	3	1	2	1	1	1	1	1	1	1	1
CO4	3	1	2	2	2	2	2	1	2	1	1
CO5	3	1	2	1	1	1	1	1	1	1	1
PO Target	3.00	1.00	1.80	1.20	1.40	1.40	1.40	1.00	1.40	1.00	1.00

Signature of Course Instructor (s): *N. G. R. Rao*

BoS Remarks:

Session	2018-19	2019-20	2020-21	2021-22	2022-23 (Decided)
% Achieved (Internal Exams)	NA	NA	94.00%	60	60
% Achieved (External Exams)	NA	NA	77.42%		60

Prof.(Dr.) N. G. Raghavendra Rao

Signature of CO- Coordinator



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	4
Course-	Experimental Pharmacology* IV-yr	Code	BP810ET	Semester	8
Course Instructors-	Mrs. Priya Bansal			Course Type-	Elective

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand various guidelines (CPCSEA, OECD), techniques (blood collection) used in various strains of animals.	Understand	Factual & Conceptual
CO2	Illustrate various screening models for estimation of CNS activity (analgesic, antipyretic, antidepressant, antiepileptic).	Apply	Factual, Conceptual Procedural
CO3	Investigate different preclinical screening models for estimation of Autonomic Nervous System activity.	Analyze	Factual, Conceptual Procedural
CO4	Examine antihypertensive, diuretics, anticoagulants, antidyslipidemic activity in experimental models.	Analyze	Factual, Conceptual Procedural
CO5	Outline various research methodology and biostatistics for designing and interpretation of a research study.	Analyze	Factual & Conceptual
CO6			

Mapping of COs with POs											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	1			1	3	1	2	1	2
CO2	3	2	2	2		1	1	1	2	1	2
CO3	3	2	2	2		1	1	1	2	1	2
CO4	3	2	2	2		1	1	1	2	1	2
CO5	3	2	2	2		1	1	1	2	1	2
CO6											
PO Target	3.00	2.00	1.80	2.00	#DIV/0!	1.00	1.40	1.00	2.00	1.00	2.00

Signature of Course Instructor (s):

Priya Bansal



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	4
Course-	Elective Project (s)	Code	BP814PW	Semester	8
Course Instructors	Mr. Debaprasad Ghosh			Course Type-	Lab

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Understand the rationale behind performing project work in a specific elected area of pharmacy.	Understand	Factual, Conceptual
CO2	Acquire expertise in data mining, literature reviewing, and processing for a particular research area of pharmacy.	Apply	Conceptual, Procedural
CO3	Analyze the implementation of available knowledge and technology to cater the needs under consideration.	Analyze	Conceptual, Procedural
CO4	Evaluate the potential role of new findings and their conversion into suitable solutions for the current pharmaceutical challenges.	Evaluate	Conceptual, Procedural
CO5	Develop novel theories, ideas, products, analytical methods, procedures, and techniques in a specific elected area in pharmacy.	Create	Conceptual, Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	2	-	-	1	1	-	1	-	2
CO2	3	1	2	-	-	1	1	-	1	-	2
CO3	3	2	2	3	-	1	1	-	1	-	2
CO4	3	2	2	1	-	1	1	-	2	-	2
CO5	3	1	2	2	-	1	1	-	2	-	2
PO Target	3.00	1.40	2.00	2.00	#DIV/0!	1.00	1.00	#DIV/0!	1.40	#DIV/0!	2.00

Signature of Course Instructor (s):



KIET School of Pharmacy, KIET Group of Institutions**CO Statements and CO- PO Mapping**

Program-	B. Pharm.			Year	4	
Course-	Report on Industrial Tour		Code	BP815P	Semester	8
Course Instructors-	Mr. Debaprasad Ghosh			Course Type-	Lab	

CO No.	Statement of Course Outcome	BL	KC
After completion of the course, the student will be able to			
CO1	Identify the layout of a pharmaceutical industry and the various sections and departments.	Remember	Factual, Conceptual
CO2	Understand how a pharmaceutical industry operates and the different roles and responsibilities of various personal involved.	Understand	Factual, Conceptual
CO3	Acquire the knowhow about the different equipments that are being used inside an industry for the manufacturing and testing of pharmaceuticals.	Apply	Conceptual, Procedural
CO4	Analyze various approval procedures, rules and regulations required to be followed inside a pharmaceutical industry.	Analyze	Factual, Conceptual and Procedural
CO5	Compare the differences and similarities between the institutional theoretical and practical based learnings with that of the Industrial day to day activities.	Evaluate	Factual, Conceptual and Procedural

Mapping of COs with POs											
	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	2	1	-	-	-	1	-	-	-	2
CO2	3	2	2	2	1	1	2	1	-	-	2
CO3	3	2	2	3	-	1	-	-	-	-	2
CO4	3	2	2	-	1	1	2	1	1	2	2
CO5	3	2	1	2	-	1	1	-	-	-	2
PO Target	3.00	2.00	1.60	2.33	1.00	1.00	1.50	1.00	1.00	2.00	2.00

Signature of Course Instructor (s):




CO COORDINATOR ODD SEM 2022-23

S.NO.	SUBJECT CODE	SUBJECT NAME	SUBJECT TYPE	FACULTY NAME	SEMESTER	
1	BP101T	HUMAN ANATOMY AND PHYSIOLOGY-	THEORY	Ms.Priya	1	
2	BP102T	PHARMACEUTICAL ANALYSIS I -Theory	THEORY	Dr.Ablay Bhardwaj		
3	BP103T	PHARMACEUTICS I -Theory	THEORY	MR.PANKAJ		
4	BP104T	PHARMACEUTICAL INORGANIC CHEMISTRY	THEORY	Ms. Shikha		
5	BP105T	COMMUNICATION SKILLS -Theory	THEORY	Dr Priyanka Sharma		
6	BP106RBT	REMEDIAL BIOLOGY -Theory	THEORY	Dr. Vinay		
7	BP106RMT	REMEDIAL MATHEMATICS -Theory	THEORY	Dr. Swati Maheshwari		
8	BP107P	HAP PRACTICAL	LAB	Mr. Praveen Kr. Dixit		
9	BP108P	P.ANALYSIS PRACTICAL	LAB	Dr.Abhay Bhardwaj		
10	BP109P	PHARMACEUTICS PRACTICAL	LAB	Mr.Ghosh		
11	BP110P	IPC PRACTICAL	LAB	MR.SURYA		
12	BP105T	COMMUNICATION SKILLS PRACTICAL	LAB	Dr Priyanka Sharma		
13	BP106RBT	REMEDIAL BIOLOGY PRACTICAL	LAB	Dr.Richa		
14	BP-301T	PHARMACEUTICAL ORGANIC CHEMISTRY-II	THEORY	Ms. Shipra	3	
15	BP-302T	PHYSICAL PHARMACEUTICS-I	THEORY	Dr. Kiran		
16	BP-303T	PHARMACEUTICAL MICROBIOLOGY	THEORY	Dr. Monika kaurav		
17	BP-304T	PHARMACEUTICAL ENGINEERING	THEORY	Mr. Sanjeev Chauhan		
18	BP-305P	PHARMACEUTICAL ORGANIC CHEMISTRY-II	LAB	Dr. Vaishali		
19	BP-306P	PHYSICAL PHARMACEUTICS-I PRACTICAL	LAB	Dr. N.G. Raghavendra Ra		
20	BP-307P	PHARMACEUTICAL MICROBIOLOGY	LAB	Mr. Harsh		
21	BP-308P	PHARMACEUTICAL ENGINEERING PRACTICAL	LAB	Mr. Sanjeev Chauhan		
22	KVE-301	UNIVERSAL HUMAN VALUES	THEORY	Mr.Praveen Dixit		
24	DRA.	MINOR SPECIALIZATION (DRA)		Dr. Vinay		
25	BP-501T	MEDICINAL CHEMISTRY-II	THEORY	DR.VAISHALI	5	
26	BP-502T	INDUSTRIAL PHARMACY-I	THEORY	DR.LAKSHMI		
27	BP-503T	PHARMACOLOGY-II	THEORY	Dr. Abhishek Kumar		
28	BP-504T	PHARMACOGNOSY-II	THEORY	DR.RICHA		
29	BP-505T	PHARMACEUTICAL JURISPRUDENCE	THEORY	Mr. Harsh Rastogi		
30	BP-506P	INDUSTRIAL PHARMACY-I PRACTICAL	LAB	Mr. Harsh rastogi		
31	BP-507P	PHARMACOLOGY-II PRACTICAL	LAB	Dr. Abhishek Kumar		
32	BP-508P	PHARMACOGNOSY-II PRACTICAL	LAB	DR.DAKSH		
33	RPH-533	SOFT SKILLS	VALUE ADDED	Ms. Sugandha		
34	VAS10	Herbal Product Development	VALUE ADDED COURSE	Dr. Deepti Katiyar		
35	BP-701T	INSTRUMENTAL METHODS OF ANALYSIS THEORY	THEORY	Ms. Shipra Singhal	7	
36	BP-702T	INDUSTRIAL PHARMACY II THEORY	THEORY	Mr.Anuj Pathak		
37	BP-703T	PHARMACY PRACTICE THEORY	THEORY	Dr. Shardendu Mishra		
38	BP-704T	NOVEL DRUG DELIVERY SYSTEM (NDDS)	THEORY	DR.LAKSHMI		
39	BP-705P	INSTRUMENTAL METHODS OF ANALYSIS	LAB	DR.GARIMA		DR.NAGARAJAN
40	BP-706PS	PS- PHYTOMEDICINE	LAB	Mr. Debaprasad Ghosh. (A common CO and CO-PO needs to be prepared. All Practice school teachers kindly prepare by having a consultation amongst yourselves.)		Dr. Daksh Bhatia
41	BP-706PS	PS- FORMULATION DEVELOPMENT	LAB			Mr. Debaprasad Ghosh
42	BP-706PS	PS- DRUG DESIGN AND PROCESS CHEMISTRY	LAB			Dr. Garima Kapoor
43	BP-706PS	PS- QUALITY CONTROL AND QUALITY	LAB			Dr. Alankar Srivastav
44	BP-706PS	PS- ALTERNATIVE MEDICINE	LAB			Dr. Shardendu Kumar Mishra
45	BP-706PS	PS- ARTIFICIAL INTELLIGENCE	LAB			Ms. Vidhu Saxena

Principal KSOP



KIET Group of Institutions

Final Statements – KIET Group of Institutions

Vision statement

To become a leading institution nationally in the area of professional education, research & innovation for serving the global community.

Mission statements

- To impart quality professional education, skills and values through outcome-based innovative teaching learning process in all spheres.
- To undertake collaborative interdisciplinary research as a co-requisite for professional education and simultaneously solve problems faced by society and industry.
- To create an ambience of innovation, entrepreneurship and consultancy for future leaders and innovators.
- To keep faculty members enthusiastic by continuous professional development and positive working environment.

Core Values

- Academic excellence
- Collaborative and interdisciplinary research culture
- Conducive eco-system
- Strong humanitarian values & Ethics

Educational Objectives

- To provide quality education for better academic achievements.
- To provide the essential skills to meet the current and future needs of industry & society.
- To encourage the students to attain excellent professional knowledge with holistic approach.
- To inculcate a successive learning environment that allows students to be adaptive and responsive to new avenues as well as career demands

KIET Group of Institutions

Final Statements – KIET Group of Institutions

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- To encourage the students to attain excellent professional knowledge with holistic approach.
- To inculcate a successive learning environment that allows students to be adaptive and responsive to new avenues as well as career demands

ANNEXURE I: PROGRAM OUTCOMES

1. **Pharmacy Knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
2. **Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
3. **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
4. **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
5. **Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.
6. **Professional Identity:** Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).
7. **Pharmaceutical Ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
8. **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
9. **The Pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
10. **Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
11. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Human Anatomy & Physiology-I (Theory)

Course Code- BP101T

Course Instructors- Mr. Praveen Kumar Dixit and Ms. Priya Bansal

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discuss the basic structure of human body parts including cell, tissue and various types of cells signaling pathways.	Understand	Factual & Conceptual
CO2	Illustrate the structural and functional characteristics of bones and muscles of the human body.	Apply	Factual & Conceptual
CO3	Outline the composition and functions of blood and lymph.	Analyze	Factual & Conceptual
CO4	Illustrate the anatomical and physiological aspects of peripheral nervous system and sense organs.	Apply	Factual & Conceptual
CO5	Outline the structural and functional aspects of heart and its correlation with disorders in relation with ECG.	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code:											
BP101T	1	2	3	4	5	6	7	8	9	10	11
CO1	3						1	1	1		2
CO2	3						1	1	1		2
CO3	3						1	1	1		2
CO4	3						1	1	1		2
CO5	3						1	1	1		2
PO Target	3						1	1	1		2

Signature of CO- Coordinator: Ms. Priya Bansal



OK

Signature

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- I

Course- Pharmaceutical Analysis-I, Theory

Course Code- BP102T

Course Instructors-Dr. Abhay Bhardwaj

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the basics and concepts of pharmaceutical analysis, its techniques and errors.	Apply	Factual & Conceptual
CO2	Determine the basics and concepts of acid base and non-aqueous titration and its application.	Apply	Factual & Conceptual
CO3	Demonstrate the basics and concepts of precipitation, complexometric, gravimetry and diazotization with its application.	Apply	Factual & Conceptual
CO4	Illustrate the basics and concepts of redox titrations and its application.	Apply	Factual & Conceptual
CO5	Demonstrate the basics and concepts of electrochemical methods of analysis and its applications.	Apply	Factual & Conceptual

Mapping of COs with POs

Course Code:											
BP102T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	2	3	-	2	1	1	2	-	3
CO2	3	1	2	2	-	2	1	1	2	-	3
CO3	3	1	2	3	-	2	1	1	2	-	3
CO4	3	1	2	3	-	1	1	1	2	-	2
CO5	3	1	2	3	-	2	1	1	2	-	3
PO Target	3	1	2	2.8	-	1.8	1	1	2	-	2.8

Signature of CO- Coordinator _____ (Dr. Abhay Bhardwaj) (Dr. Neha Rana)



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm.

Semester- 3

Course- Pharmaceutics I – Theory

Course Code- BP103T

Course Instructors- Mr. Debaprasad Gosh & Mr. Pankaj Bhatt

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the rationale and concept behind the pharmacy profession, definition and types of dosage forms, pharmacopoeias, prescription & posology.	Apply	Factual, Conceptual
CO2	Explore different types of basic calculations involved in the pharmaceuticals, pharmaceutical powders & liquid dosage forms.	Analyze	Conceptual & Procedural
CO3	Outline monophasic liquid dosage forms, and biphasic liquid dosage forms like suspensions and emulsions.	Analyze	Conceptual & Procedural
CO4	Identify the formulation requirements of suppositories and different pharmaceutical incompatibilities.	Analyze	Conceptual & Procedural
CO5	Explore semisolid dosage forms.	Analyze	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP103T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	1	-	1	1	1	-	-	1	1
CO2	3	1	1	-	-	1	1	-	-	-	1
CO3	3	1	1	-	-	1	1	-	-	-	1
CO4	3	1	2	-	-	1	1	-	-	-	1
CO5	3	1	2	-	-	1	1	-	-	-	1
PO Target	3	1	1.4	-	1	1	1	-	-	1	1

Signature of CO- Coordinator









Session- 2021-22 Even semester

Program-B.Pharm

Semester- I

Course-Pharmaceutical Inorganic Chemistry

Course Code- BP104T

Course Instructors-Ms. Shikha Kaushik and Mr. Surya Prakash

Ms. Pragati Gupta*
Tagging Cos with BLs and KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the sources of impurities with their control and limit test of inorganic molecules in pharmaceuticals.	Understand	Conceptual, and Procedural
CO2	Explain buffers, major intra, and extracellular electrolytes, and combination therapy including ORS and dental products.	Understand	Conceptual, and Procedural
CO3	Describe the various inorganic gastrointestinal agents and antimicrobials.	Understand	Conceptual, and Procedural
CO4	Understand the expectorants, emetics, haematinics, and antidotes used in inorganic pharmaceuticals.	Understand	Conceptual, and Procedural
CO5	Elaborate on the handling and precautions of radiopharmaceuticals.	Understand	Conceptual, and Procedural

Shikha
Sf
Shikha Kaushik
Pragati



2/10/22

Session- 2021-22 Even semester

Program- B.Pharm

Semester- I

Course- Pharmaceutical Inorganic Chemistry

Course Code- BP104T

Course Instructors- Ms. Shikha Kaushik and Mr. Surya Prakash

*Ms. Pragati Gupta**

Mapping of COs with POs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	-	3	-	-	-	-	-	3	3	3
CO2	3	-	3	-	-	-	-	-	3	2	3
CO3	3	-	3	-	-	-	-	-	3	1	3
CO4	3	-	3	-	-	-	-	-	3	-	3
CO5	3	2	3	2	-	-	-	-	3	3	3
PO Target	3	2	3	2	-	-	-	-	3	2.35	3

Signature of CO- Coordinator

Shikha

*SP
Pragati*



LPD

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Communication Skills

Course Code- BP105T

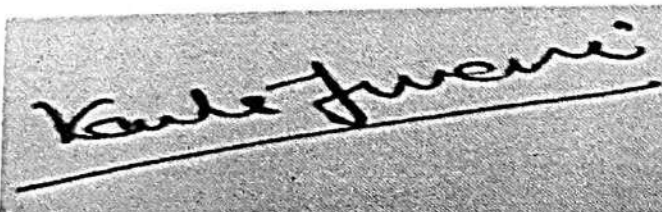
Course Instructors-Dr. Kavita Tiwari

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Figure out the communication strategies and principles along with the various perspectives at workplace.	Analyze	Conceptual & Procedural
CO2	Practice the verbal & Non-verbal communication skills including the cognition of various communication style matrix.	Apply	Conceptual
CO3	Exercise the key principles of effective presentation techniques.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP105T	1	2	3	4	5	6	7	8	9	10	11
CO1	-	-	-	-	-	-	-	3	3	3	2
CO2	-	-	-	-	-	-	-	3	2	3	2
CO3	-	-	-	-	-	-	-	3	2	3	2
PO Target	-	-	-	-	-	-	-	3	2	3	2



Signature of CO- Coordinator





KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- I

Course- Communication Skills

Course Code- BP105T

Course Instructors-Dr. Babita Tyagi

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Figure out the communication strategies and principles along with the various perspectives at workplace.	Analyze	Conceptual & Procedural
CO2	Practice the verbal & Non-verbal communication skills including the cognition of various communication style matrix.	Apply	Conceptual
CO3	Exercise the key principles of effective presentation techniques.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP105T	1	2	3	4	5	6	7	8	9	10	11
CO1	-	-	-	-	-	-	-	3	3	3	2
CO2	-	-	-	-	-	-	-	3	2	3	2
CO3	-	-	-	-	-	-	-	3	2	3	2
PO Target	-	-	-	-	-	-	-	3	2	3	2

B. Tyagi

Dr Babita Tyagi

Signature of CO- Coordinator



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KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Remedial Biology- Theory

Course Code-BP106RBT

Course Instructors-Dr. Vinay Kumar and Dr. Richa Goel

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Describe the basic components of anatomy & morphology of plants.	Understand	Factual and Conceptual
CO2	Explain the concept of Body fluids, circulatory system, digestive system and respiration system.	Understand	Factual and Conceptual
CO3	Restate the basic concepts of excretory system, human reproduction system, neural, chemical control and coordination	Understand	Factual and Conceptual
CO4	Summarize the basic concept of plant nutrition and nitrogen metabolism with the process of photosynthesis.	Understand	Factual and Conceptual
CO5	Elaborate about plant cell and tissues with the mechanism of plant respiration, its growth and development.	Understand	Factual and Conceptual

Mapping of COs with POs

Course Code: BP106RBT	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	1	-	-	-	-	-	-	-	-	-	3
CO2	3	-	-	-	-	1	-	-	-	-	2
CO3	3	-	-	-	-	1	-	-	-	-	2
CO4	1	-	-	-	-	-	-	-	-	-	3
CO5	1	-	-	-	-	-	-	-	-	-	3
PO Target	1.8					1					2.6

Signature of CO- Coordinator

Richa *Richa*



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- REMEDIAL MATHEMATICS

Course Code- BPRMT106

Course Instructors- Dr Swati Maheshwari & Dr. Neelam Sharma

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Apply the concepts of partial fractions, logarithms, real valued functions, limits and continuity in Chemical Kinetics & Pharmacokinetics.	Apply	Conceptual & Procedural
CO2	Apply the concepts of determinants and Matrices in solving Pharmacokinetics equations.	Apply	Conceptual & Procedural
CO3	Apply the concepts of derivatives of a function of one variable to find extrema at a point.	Apply	Conceptual & Procedural
CO4	Apply the concepts of coordinate geometry integration in Pharmaceutical problems.	Apply	Conceptual & Procedural
CO5	Apply the concepts of Differential equations and Laplace transformations in solving Chemical Kinetics & Pharmacokinetics equations.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code: BPRMT106		1	2	3	4	5	6	7	8	9	10	11
CO1		2	-	-	-	-	-	1	-	1	-	1
CO2		2	1	1	1	-	1	1	-	1	-	1
CO3		2	1	2	-	-	1	1	-	1	-	1
CO4		2	1	1	-	-	-	1	-	-	-	1
CO5		2	1	2	-	-	1	1	-	-	-	1
PO Target		2	1	1.5	1	-	1	1	-	1	-	1

Signature of CO- Coordinator

Swati



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd semester

Program- B. Pharm

Semester- 1

Course- Human Anatomy & Physiology-I (Practical)

Course Code- BP107P

Course Instructors- Mr. Praveen Kumar Dixit and Ms. Priya Bansal

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the microscopical characteristics of different types of cells and tissues in human body under the light of microscopic techniques.	Analyze	Conceptual & Procedural
CO2	Illustrate the concept for identification of various types of bones and joints under the background of their anatomical correlation.	Analyze	Conceptual & Procedural
CO3	Assess the methods and techniques to measure the various components of blood.	Evaluate	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP107P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	1	2	1			1	2		2
CO2	3	1	1	2	1			1	2		2
CO3	3	1	1	2	1			1	2		2
PO Target	3	1	1	2	1			1	2		2

Signature of CO- Coordinator: Mr. Praveen Kumar Dixit



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Pharmaceutical Analysis-I

Course Code- BP10SP

Course Instructors- Dr. Abhay Bhardwaj and Dr Neha Rana

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the qualitative and quantitative analysis of molecules in Pharmaceuticals by volumetric analysis.	Understand	Conceptual & Procedural
CO2	Elaborate the standardization of the given strength of molecules in Pharmaceuticals.	Understand	Conceptual & Procedural
CO3	Explain the assay of given samples of pharmaceutical molecules.	Understand	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP 108P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	3	-	-	-	-	-	3	3	3
CO2	3	-	3	-	-	-	-	-	3	2	3
CO3	3	-	3	-	-	-	-	-	3	-	3
PO Target	3	-	3	-	-	-	-	-	3	2.5	3

Signature of Co-Coordinator

(Dr. Abhay Bhardwaj)

(Dr. Neha Rana)



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Pharmaceutics- I Practical

Course Code- BP109P

Course Instructors- Mr. Debaprasad Ghosh and Mr. Pankaj Bhat

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Exercise the preparation and dispensing of monophasic liquid dosage forms such as syrups, elixirs, linctus, solutions, gargles and mouthwashes.	Apply	Conceptual & Procedural
CO2	Exercise the preparation and dispensing of biphasic liquid dosage forms such as suspensions and emulsions.	Apply	Conceptual & Procedural
CO3	Exercise the preparation and dispensing of different types of powders and granules.	Apply	Conceptual & Procedural
CO4	Exercise the preparation and dispensing of semisolid dosage forms including ointments and creams.	Apply	Conceptual & Procedural
CO5	Exercise the preparation and dispensing of suppositories.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP109P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	2	-	2	2	2	1	3	-	3
CO2	3	-	2	-	2	2	2	1	3	-	3
CO3	3	-	2	-	2	2	2	1	3	-	3
CO4	3	-	2	-	2	2	2	1	3	-	3
CO5	3	-	2	-	2	2	2	1	3	-	3
PO Target	3	-	2	-	2	2	2	1	3	-	3

Signature of CO- Coordinator

Mr. D.P. Ghosh



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Pharmaceutical Inorganic Chemistry

Course Code- BP110P

Course Instructors- Mr. Surya Prakash

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the sources of impurities with their control and Limit test of inorganic molecules in Pharmaceuticals.	Understand	Conceptual & Procedural
CO2	Explain the Identification test and test of purity of inorganic molecules in Pharmaceuticals.	Understand	Conceptual & Procedural
CO3	Elaborate on the Preparation of inorganic pharmaceuticals and their assays.	Understand	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP110P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	3	1	1	-	1	1	3	3	3
CO2	3	1	3	1	1	-	1	1	3	2	3
CO3	3	1	3	1	1	-	1	1	3	1	3
PO Target	3	1	3	1	1	-	1	1	3	2	3

Signature of CO- Coordinator



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 1

Course- Communication Skills (Practical)

Course Code- BP111P

Course Instructors- Dr. Priyanka Sharma

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Attain the cognizance to exhibit interest and participate in the synergy & team work with the help of good interpersonal skills.	Apply	Conceptual & Procedural
CO2	Apply the pronunciation etiquette to build the self-confidence with improved command over the mechanics of English language	Apply	Conceptual & Procedural
CO3	Practice both formal effective verbal and non-verbal communication skills to make information more accessible to the audience.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP111P	1	2	3	4	5	6	7	8	9	10	11
CO1	-	-	-	-	-	-	-	3	3	3	2
CO2	-	-	-	-	-	-	-	3	2	3	2
CO3	-	-	-	-	-	-	-	3	2	3	2
PO Target	-	-	-	-	-	-	-	3	2	3	2

Signature of CO- Coordinator



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Program- B. Pharm

Semester- 1

Course- Remedial Biology- Practical

Course Code-BP112RBP

Course Instructors- Dr. Richa Goel/ Dr. Vinay Kumar

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Demonstrate microscope, section cutting, mounting and staining of slides.	Apply	Procedural
CO2	Explain various parts of plants.	Understand	Procedural
CO3	Examine the tissues pertinent to Stem, Root, Leaf, seed, fruit and flower and bones.	Apply	Procedural
CO4	Determine the blood group, blood pressure and tidal volume in human	Apply	Procedural

Mapping of COs with Pos

Course Code: BP112RBP	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	2	2	-	-	-	-	1	-	2
CO2	3	-	2	-	-	-	-	1	1	1	2
CO3	3	-	2	1	-	-	-	-	1	-	2
CO4	3	-	2	2	-	-	-	1	2	-	2
PO Target	3		2	1.25				1	1.25	1	2

Signature of CO- Coordinator

Richa

Vinay



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 3

Course- Pharmaceutical Organic Chemistry-II- Theory

Course Code- BP301T

Course Instructors- Mr. Surya Prakash and Ms. Shipra Singhal

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the structure, properties, chemical reactions and uses of benzene and its derivatives.	Apply	Factual & Conceptual
CO2	Examine the structure, properties, chemical reactions and uses of phenols, aromatic amines and aromatic acids.	Apply	Factual & Conceptual
CO3	Determine the structure, chemical reactions and analytical constants and significance of oil and fats.	Apply	Factual & Conceptual
CO4	Illustrate the structure, synthesis, chemical reactions and medicinal uses of polynuclear hydrocarbons.	Apply	Factual & Conceptual
CO5	Illustrate the structure, properties, chemical reactions and uses of cycloalkanes.	Apply	Factual & Conceptual

Mapping of COs with POs

Course Code:											
BP301T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	2	2	-	2	1	1	2	1	3
CO2	3	1	2	2	-	2	1	1	2	1	3
CO3	3	1	2	2	-	2	1	1	2	1	3
CO4	3	1	2	2	-	2	1	1	2	1	3
CO5	3	1	2	2	-	2	1	1	2	1	3
PO Target	3	1	2	2	-	2	1	1	2	1	3

Signature of CO- Coordinator

Surya Prakash

Shipra Singhal



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 3

Course- Physical Pharmacy- Theory

Course Code- BP302T

Course Instructors- Dr. Kiran Sharma and Ms. Sakshi Garg

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate parameters related to solubility of the drugs.	Apply	Conceptual & Procedural
CO2	Analyze states of Matter, properties of matter and physicochemical properties of drug molecules.	Analyze	Conceptual & Procedural
CO3	Determine about surface and interfacial phenomenon.	Apply	Conceptual & Procedural
CO4	Outline complexation and protein binding.	Analyze	Conceptual & Procedural
CO5	Illustrate about pH, buffers and Isotonic solutions.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:		1	2	3	4	5	6	7	8	9	10	11
BP302T												
CO1		3	1	2	1	-	-	-	1	1	-	2
CO2		2	1	2	1	-	-	-	1	1	-	2
CO3		3	1	2	2	-	-	-	1	1	-	2
CO4		2	1	2	2	-	-	-	1	1	-	2
CO5		3	1	2	1	-	-	-	1	1	-	2
PO Target		3	1	2	1.40	-	-	-	1	1	-	2

Signature of CO- Coordinator

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Session- 2022-23 Odd semester

Program- B. Pharm

Semester: III

Course: Pharmaceutical Microbiology- Theory

Course Code: BP303T

Course Instructors: Mr. Debaprasad.Ghosh and Dr. Monika Kaurav

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate scope and application of pharmaceutical biotechnology.	Apply	Conceptual & Procedural
CO2	Explain various staining and sterilization techniques used in pharmaceutical biotechnology	Analyze	Conceptual & Procedural
CO3	Outline evaluation methods of antiseptics, disinfectants, and the sterility testing as per different pharmacopoeias.	Analyze	Conceptual & Procedural
CO4	Explore the significance of clean area, methods and standardization microbial assay of biological products.	Analyze	Conceptual & Procedural
CO5	Analyse the prevention of microbial spoilage and preservation of pharmaceutical products & process and applications of cell culture in pharmaceutical research.	Analyze	Conceptual & Procedural

CO-PO Mapping (BP303T)

Course Code: BP303T	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	-	-	-	-	-	-	-	-	1
CO2	3	-	1	2	-	-	-	-	-	-	1
CO3	3	-	1	-	-	-	-	-	-	-	2
CO4	3	-	1	1	1	-	-	-	-	1	2
CO5	3	-	1	-	1	-	-	-	-	1	2
PO Target	3	-	1	1	1	-	-	-	-	1	1.6

Signature of CO- Coordinator

M. Kaurav

L. D. Ghosh



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 3

Course- Pharmaceutical Engineering- Theory

Course Code- BP304T

Course Instructors- Mr. Sanjeev Chauhan & Mr. Pankaj Bhatt

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the basic concepts related to fluid flow and equipment's used in size reduction and size separation in pharmaceutical industry	Understand	Factual, Conceptual, Procedural
CO2	Explain process of heat transfer and various equipment's used in evaporation and distillation.	Analyze	Conceptual & Procedural
CO3	Examine various processes and equipment used in drying and mixing.	Apply	Conceptual & Procedural
CO4	Apply filtration and centrifugation for processing of pharmaceutical products.	Apply	Conceptual & Procedural
CO5	Explore selection of different material for pharmaceutical plant construction, corrosion and its prevention	Analyze	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP304T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	1	-	-	1	-	-	-	1	1
CO2	3	1	1	-	-	1	-	-	-	1	1
CO3	3	1	1	1	-	1	-	-	-	1	1
CO4	3	1	1	1	-	1	-	-	-	1	1
CO5	3	1	1	1	-	1	-	-	-	1	1
PO Target	3	1	1	1	-	1	-	-	-	1	1

Signature of CO- Coordinator







KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program: B. Pharm

Semester: III

Course: Pharmaceutical Organic Chemistry-II- Practical

Course Code: BP305P

Course Instructors:

Dr. Vaishali M. Patil, Dr. Garima Kapoor and Ms. Pragati Gupta

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Demonstrate the purification of organic compounds.	Apply	Conceptual & Procedural
CO2	Illustrate the synthesis of some organic compounds like benzanilide, acetanilide, phenyl benzoate, 2,4,6-tribromo aniline etc.	Apply	Conceptual & Procedural
CO3	Determine acid value, saponification value of oil and fats.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:											
BP305P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	3	3	-	-	-	-	1	1	3
CO2	3	1	3	3	-	-	-	-	1	1	3
CO3	3	1	3	3	-	-	-	-	1	1	3
PO Target	3	1	3	3	-	-	-	-	1	1	3

Signature of CO- Coordinator

Maab
Garima

OK

CO2



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 3

Course- Physical Pharmaceutics-I- Practical

Course Code- BP306P

Course Instructors: Prof.(Dr.) N.G. Raghavendra Rao, Dr. Kiran Sharma, and Ms. Sakshi

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Asses the solubility of the drug at room temperature and % composition of NaCl in a solution using the phenol-water system by CST method.	Evaluate	Conceptual Procedural
CO2	Determine the partition co-efficient and Freundlich-Langmuir constants using activated charcoal & the stability constant of PABA-Caffeine complex	Apply	Conceptual Procedural
CO3	Evaluate the surface tension of given liquids by different methods. HLB number of a surfactant by saponification method and CMC of surfactants.	Evaluate	Conceptual Procedural
CO4	Measure the pKa value of a drug by Half Neutralization/ Henderson-Hasselbalch equation (Experiments related to pH).	Evaluate	Conceptual Procedural

Mapping of COs with POs

Course Code: BP306P	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11
CO-1	3	2	2	2	-	1	1	-	-	1	2
CO-2	3	2	2	2	-	1	1	-	-	1	2
CO-3	3	2	2	2	-	1	1	-	-	1	2
CO-4	3	2	2	2	-	1	1	-	-	1	2
PO Target	3	2	2	2	-	1	1	-	-	1	2

Signature of CO- Coordinator

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Session- 2022-23 Odd semester

Program- B. Pharm

Semester: III

Course: Pharmaceutical Microbiology-Practical

Course Code: BP-307P

Course Instructors: Mr. Harsh Rastogi and Dr. Monika Kaurav

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Apply various techniques and instrument used in microbiology lab	Apply	Conceptual & Procedural
CO2	Apply their theoretical knowledge for the preparation of different type of culture media	Apply	Conceptual & Procedural
CO3	Identify the type of bacteria by different staining techniques.	Analyze	Conceptual & Procedural
CO4	Determine sterility testing of different pharmaceutical products	Apply	Conceptual & Procedural

Course code: BP307P	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2	2	1	-	-	1	1	-	1	1
CO2	3	2	3	2	-	-	1	1	-	1	1
CO3	3	1	3	2	-	-	1	1	-	1	1
CO4	3	2	3	2	-	-	1	1	-	1	1
PO Target	3	1.75	2.75	1.75	-	-	1	1	-	1	1

Signature of Co-coordinator



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 3

Course- Pharmaceutical Engineering- Practical

Course Code- BP308P

Course Instructors- Mr. Sanjeev Chauhan, Ms. Surbhi Kamboj

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Demonstrate the process & factors affecting filtration and centrifugation.	Apply	Conceptual & Procedural
CO2	Demonstrate the process & principles of drying and evaporation.	Apply	Conceptual & Procedural
CO3	Handle various pharmaceutical equipment's like FBD, fluid energy mill, Ball mill, Colloidal mill, planetary mixer & Freeze dryer.	Apply	Conceptual & Procedural
CO4	Demonstrate the process and principles of crystallization and distillation	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code:												
BP308P		1	2	3	4	5	6	7	8	9	10	11
CO1		2	1	1	-	-	2	-	-	1	-	-
CO2		2	1	1	-	-	2	-	-	1	-	-
CO3		2	1	1	-	-	2	-	-	1	-	-
CO4		1	1	1	-	-	2	-	-	1	-	-
PO Target		1.75	1	1	-	-	2		-	1	-	-

Signature of CO- Coordinator



Surbhi



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 3

Course- Universal Human Values and Professional Ethics- Theory Course Code- KVE301

Course Instructors- Dr. Daksh Bhatia and Mr. Praveen Kumar Dixit

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discuss the need, basic guidelines, content and process for Value Education under the light of 'universal human values'.	Understand	Conceptual & Factual
CO2	Explore the concept of harmony in the human being (in Myself) being 'I' & 'body' as separate entity.	Apply	Conceptual & Factual
CO3	Ensure the concept 'harmony' in the family and society keeping family as part of undivided society.	Analyze	Conceptual & Factual
CO4	Appraise harmony in the nature and existence imbibing the role of individuals in maintaining the harmony within.	Evaluate	Conceptual & Factual
CO5	Interpret the holistic approach of harmony in relation with Professional Ethics.	Evaluate	Conceptual & Factual

Mapping of COs with POs

Course Code:											
KVE301	1	2	3	4	5	6	7	8	9	10	11
CO1					3	1	3		1		2
CO2					3	1	3		1		2
CO3					3	2	3		2		2
CO4					3	2	3		3	3	2
CO5					3	3	3		3	3	2
PO Target					3	1.8	3		2	3	2

Signature of CO- Coordinator: Mr. Praveen Kumar Dixit



Program- B. Pharm

Semester- 3

Course- Drug Regulatory Affairs

Course Code- Not Available

Course Instructors- Dr. Vinay Kumar

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the basics and introduction of drug regulatory affairs and various drug regulatory agencies.	Understand	Conceptual
CO2	Understand basic requirements of the dossier preparation and general guidance on the submissions to different regulatory authorities.	Understand	Conceptual and Procedural
CO3	Understand the basic regulatory documentation: viz. Active Substance Master File, Types of Drug Master File, etc.	Understand	Conceptual
CO4	Acquire detailed knowledge of ICH guidelines and IPR.	Apply	Conceptual

Mapping of COs with Pos

Course Code: NA	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	-	-	-	2	-	2	1	-	2
CO2	3	-	-	-	-	2	-	2	1	-	2
CO3	3	-	-	-	-	2	-	2	1	-	2
CO4	3	-	-	-	-	2	-	2	1	-	2
PO Target	3	-	-	-	-	2	-	2	1	-	2

Signature of CO- Coordinator

Vinay Kumar

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Vinay Kumar
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KIET Group of Institutions, Delhi-NCR, Ghaziabad

Academic Session 2022-2023 (Odd semester)

Program: B. Pharm

Semester: V

Course: Medicinal Chemistry- Theory

Course Code: BP501T

Course Instructors: Dr. Vaishali M Patil & Dr. Neha Rana

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Demonstrate the classification, mechanism of action and SAR of Antihistaminic agents & PPIs.	Apply	Factual & Conceptual
CO2	Illustrate classification, mechanism of action and SAR of Antineoplastic agents.	Apply	Factual & Conceptual
CO3	Demonstrate the classification, mechanism of action and SAR of different categories of cardiovascular agents.	Apply	Factual & Conceptual
CO4	Illustrate classification, mechanism of action and SAR of various categories of drugs associated with endocrine system.	Apply	Factual & Conceptual
CO5	Demonstrate the classification, mechanism of action and SAR of anti-diabetic agents and local anesthetics.	Apply	Factual & Conceptual

Mapping of COs with POs

CO \ PO	Programme Outcome (PO)											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	
CO1	3	1	1	1	-	2	1	1	2	1	1	
CO2	3	1	1	1	-	2	1	1	2	1	1	
CO3	3	1	1	1	-	2	1	1	2	1	1	
CO4	3	1	1	1	-	2	1	1	2	1	1	
CO5	3	1	1	1	-	2	1	1	2	1	1	
PO Target	3	1	1	1	-	2	1	1	2	1	1	

Signature of CO- Coordinator

Maish

Neha Rana



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 5

Course- Industrial Pharmacy-I

Course Code- BP502T

Course Instructors- Dr. Lakshmi and Mr. Surbhi Kamboj

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand preformulation studies and various solid, semisolid and parenteral dosage forms.	Understand	Factual, Conceptual, Procedural
CO2	Apply preformulation and BCS considerations in the development of solid, liquid oral and parenteral dosage forms and its impact on stability of dosage forms.	Apply	Conceptual, Procedural
CO3	Formulate and prepare drug products such as tablets, coated tablet, liquid oral, capsules, pellets, parenteral, ophthalmic products, cosmetics, aerosols, ophthalmic preparation.	Create	Conceptual, Procedural
CO4	Assess the quality of prepared drug products such as tablets, coated tablet, liquid oral, capsules, pellets, parenteral, ophthalmic products, aerosols, and packaging material.	Evaluate	Conceptual, Procedural
CO5	Investigate various compression and processing problems related to manufacture of tablets, coated tablets, capsules.	Analyze	Conceptual, Procedural

Mapping of COs with POs

Course Code:		1	2	3	4	5	6	7	8	9	10	11
BP502T												
CO1		3	-	-	-	-	-	-	-	-	-	-
CO2		3	-	3	1	-	-	-	1	1	-	1
CO3		3	-	3	-	1	-	1	1	1	1	1
CO4		3	-	3	3	1	-	1	1	1	-	1
CO5		3	-	3	-	-	-	-	1	1	-	1
PO Target		3	-	3	2	1	-	-	1	1	1	1

Signature of CO- Coordinator

Lakshmi

Surbhi

OK



Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 5

Course- Pharmacology-II- Theory

Course Code- BP503T


Course Instructors- Dr. Abhishek Kumar and Mrs. Sheena Mehta


COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Determine the pharmacology of drugs used for management of cardiovascular disorders	Evaluate	Factual & Conceptual
CO2	Illustrate the pharmacology of drugs acting on urinary system	Analyze	Factual & Conceptual
CO3	Examine the pharmacological and physiological roles of autacoids and drugs acting on their receptors	Analyze	Factual & Conceptual
CO4	Determine the pharmacology of drugs acting on endocrine system	Evaluate	Factual & Conceptual
CO5	Illustrate bioassay of specific drugs	Apply	Conceptual & Procedural

CO - PO Matrix

Course Code: BP503T	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	1	-	-	-	-	-	-	-	3
CO2	3	-	1	-	-	-	-	-	-	-	3
CO3	3	-	1	-	-	-	-	-	-	-	3
CO4	3	-	1	-	-	-	-	-	-	-	3
CO5	3	1	2	-	-	-	-	-	-	-	3
PO Target	3	1	1.2	-	-	-	-	-	-	-	3


CO-Coordinator
(Dr. Abhishek Kumar)


(Mrs. Sheena Mehta)



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 5

Course- Pharmacognosy & Phytochemistry-II- Theory

Course Code- BP504T

Course Instructors-Dr. Daksh Bhatia and Dr. Richa Goel


Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the concepts of metabolic pathways in higher plants.	Understand	Factual & Conceptual
CO2	Acquire the knowledge of the chemistry, source, therapeutic uses and commercial applications of specific crude drugs.	Apply	Factual & Conceptual
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters	Analyze	Conceptual & Procedural
CO4	Understand the industrial applications of the mentioned phytoconstituents	Understand	Factual & Conceptual
CO5	Compare various methods for extraction, isolation and purification of phytoconstituents.	Evaluate	Conceptual & Procedural

Mapping of COs with POs

Course Code: BP504T	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	-	1	-	-	-	-	-	-	2
CO2	3	-	2	-	-	-	-	-	-	-	2
CO3	3	-	2	3	-	-	-	-	-	-	2
CO4	3	-	2	1	-	-	-	-	-	-	2
CO5	3	1	2	3	-	-	-	-	-	-	2
PO Target	3	1	2	2	-	-	-	-	-	-	2

Signature of CO- Coordinator

 Richa Goel



Session- 2022-23 Odd semester

Program- B. Pharm Semester: III

Course: Pharmaceutical Jurisprudence- Theory

Course Code: BP505T

Course Instructors: Mr. Harsh Rastogi and Dr. Monika Kaurav

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Demonstrate the rules and regulations defined under the Drugs and Cosmetics act 1945.	Apply	Factual & Conceptual
CO2	Illustrate the regulation by Pharmacy Act 1948, Medicinal and Toilet Preparations Act and Narcotic Drugs and Psychotropic Substances Act .	Apply	Factual & Conceptual
CO3	Demonstrate the guidelines laid under the acts pertaining to prevention of cruelty to animals and national pricing authority.	Apply	Factual & Conceptual
CO4	Illustrate the basics of pharmaceutical legislations and code of pharmaceutical ethics.	Apply	Factual & Conceptual
CO5	Demonstrate the medical termination of pregnancy act, RTI act and IPR.	Apply	Factual & Conceptual

Mapping of COs with POs (BP505T)

Course Code: BP505T	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	1	-	1	-	1	2	3	1	1	-	2
CO2	1	-	1	-	1	2	3	1	2	-	2
CO3	1	-	1	-	1	2	3	1	1	-	2
CO4	1	-	1	-	1	2	3	1	2	-	2
CO5	1	-	1	-	1	2	3	1	1	-	2
PO Target	1	-	1	-	1	2	3	1	1.4	-	2

Signature of CO- Coordinator



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 5

Course- Industrial Pharmacy-I (Practical)

Course Code- BP506P

Course Instructors- Mr. Harsh Rastogi, Dr. Lakshmi, Dr. Ashu Mittal, Ms. Surbhi Kamboj

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Determine various physicochemical parameters of drugs to perform preformulation studies.	Evaluate	Conceptual, Procedural
CO2	Prepare various dosage forms such as tablets, capsules, injections, eye ointments, eye drops and creams.	Create	Conceptual, Procedural
CO3	Evaluate tablets and capsules on various parameters	Evaluate	Conceptual, Procedural
CO4	Formulate coated tablets/granules	Create	Conceptual, Procedural

Mapping of COs with POs

Course Code:	Programme outcomes										
BP506P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2	2	1	-	-	1	1	-	1	1
CO2	3	2	3	1	-	-	1	1	-	1	1
CO3	3	1	3	1	-	-	1	1	-	1	1
CO4	3	2	3	1	-	-	1	1	-	1	1
PO Target	3	1.75	2.75	1	-	-	1	1	-	1	1

Signature of CO- Coordinator

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KIET Group of Institutions, Delhi-NCR, Ghaziabad

COs with BLs & KCs

Faculty Name: Dr. Abhishek Kumar; Mr Kapil Sachan; Dr. Vinay Kumar

Class: B.Pharm V Sem Practical

Subject: Pharmacology-II Practical (BP507P)

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Determine the effect of drugs on isolated preparation of animal tissues through simulation software	Apply	Conceptual & Procedural
CO2	Illustrate the pharmacological activity of drugs on animal models through simulation software	Analyze	Conceptual & Procedural
CO3	Determine the effect of drugs on dose-response curve of agents on isolated preparation of animal tissues through simulation software	Apply	Conceptual & Procedural
CO4	Demonstrate the bioassay techniques for effect of drugs on animal preparations through simulation software	Apply	Conceptual & Procedural

CO - PO Matrix

Course Code: BP507P	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	3	2	2	-	-	-	-	1	-	3
CO2	3	3	2	2	-	-	-	-	1	-	3
CO3	3	3	2	2	-	-	-	-	1	-	3
CO4	3	3	2	2	-	-	-	-	1	-	3
PO Target	3	3	2	2	-	-	-	-	1	-	3



(Signature)
CO Coordinator
(Dr. Abhishek Kumar)







KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 5

Course- Pharmacognosy & Phytochemistry-II- Practical

Course Code- BP508P

Course Instructors- Dr. Daksh Bhatia and Dr. Richa Coel and *Pb. Pragati Gupta*

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Acquire the knowledge of the morphology and microscopy of crude drugs	Apply	Conceptual & Procedural
CO2	Compare various methods for extraction and isolation of phytoconstituents.	Evaluate	Conceptual & Procedural
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters	Analyze	Conceptual & Procedural

Mapping of COs with POs

Course Code: BP508P	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	-	2	-	2	-	-	-	-	2
CO2	3	2	2	2	-	2	-	-	-	-	2
CO3	3	2	2	2	-	2	-	-	-	-	2
PO Target	3	2	2	2	-	2	-	-	-	-	2

Signature of CO- Coordinator

[Signature] *Richa* *Pragati*

OK



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 5

Course- Herbal Product Development

Course Code-VA510

Course Instructors-Dr. Deepti Katiyar and Ms. Pragati

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the concepts of Phytochemical Screening, Extraction and Isolation	Understand	Factual & Conceptual
CO2	Analyze the parameters for the standardization of crude drugs and herbal products	Analyze	Conceptual & Procedural
CO3	Understand the screening models for biological activities of natural products	Understand	Factual & Conceptual
CO4	Understand the concepts for developing herbal formulations, herbal cosmetics and nutraceuticals and their packaging strategies	Understand	Factual & Conceptual
CO5	Evaluate the herbal products for their pharmaceutical stability	Evaluate	Conceptual & Procedural

Mapping of COs with POs

Course Code: VA510	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	-	-	-	-	-	-	-	-	2
CO2	3	1	2	3	-	-	2	1	-	-	2
CO3	3	-	-	3	-	-	-	-	-	-	2
CO4	3	-	-	-	-	-	-	-	-	-	2
CO5	3	1	2	3	-	-	2	1	-	-	2
PO Target	3	1	2	3	-	-	2	1	-	-	2

Signature of CO- Coordinator

Deepti
Pragati



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 7

Course- Instrumental Method of Analysis- Theory

Course Code- BP701T

Course Instructors- Dr. K. Nagarajan/ Dr. Garima and Ms. Shipra Singhal

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the basics and concepts of UV Visible spectroscopy, Fluorimetry and its applications.	Analyze	Conceptual
CO2	Apply the basics and concepts of IR spectroscopy, flame photometry, atomic absorption spectroscopy, Nepheloturbidometry.	Analyze	Conceptual
CO3	Demonstrate the basics and concepts of chromatography, TLC, paper chromatography, Electrophoresis.	Apply	Conceptual & Procedural
CO4	Illustrate the basics and concepts of Gas chromatography and High-performance liquid chromatography.	Analyze	Conceptual & Procedural
CO5	Understand the basics and concepts of Ion exchange chromatography, Gel chromatography and Affinity chromatography.	Understand	Conceptual

Mapping of COs with POs

Course Code:											
BP701T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	2	3	-	2	1	1	2	-	3
CO2	3	-	2	3	-	2	1	1	2	2	3
CO3	3	-	2	3	-	2	1	-	2	-	3
CO4	3	-	2	3	-	2	1	1	2	2	3
CO5	3	-	2	3	-	2	1	-	2	-	3
PO Target	3	-	2	3	-	2	1	1	2	2	3

Signature of CO- Coordinator

Shipra Singhal



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 7

Course- Industrial Pharmacy II - Theory

Course Code- BP702T

Course Instructors-Ms. Vidhu Saxena and Mr. Anuj Pathak

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Explain pilot plant scale up techniques.	Understand (BL-2)	Conceptual, Factual and Procedural
CO2	Categorize various guidelines for technology transfer	Analyze (BL-4)	Conceptual, Factual and
CO3	Assess regulatory affairs in context with regulatory framework of Pharma Industry	Evaluate (BL-5)	Conceptual, Factual and Procedural
CO4	Outline different aspects of Quality Management System	Analyze (BL-4)	Conceptual, Factual and Procedural
CO5	Examine Indian Regulatory Requirements	Apply (BL-3)	Conceptual and Factual

Mapping of COs with POs

Course Code:		1	2	3	4	5	6	7	8	9	10	11
BP702T												
CO1		3	-	1	-	-	-	-	-	-	-	3
CO2		3	-	3	-	-	-	-	-	-	-	3
CO3		3	-	1	-	-	3	-	-	-	-	3
CO4		3	-	3	-	-	2	-	-	-	-	3
CO5		3	-	1	-	-	1	-	-	-	-	3
PO Target		3	-	1.8	-	-	2	-	-	-	-	3

Signature of CO- Coordinator





KIET GROUP OF INSTITUTIONS, DELHI-NCR, GHAZIABAD

Session 2022-2023 Odd Semester

Program- B.Pharm.

Semester- VII

Course Pharmacy Practice – Theory

Course Code – BP703T

Course Instructor – Dr Shardendu Kumar Mishra and Mrs. Priya Bansal

Tagging COs with BLs and KCs

S No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KCs)
~After completion of the course, the student will be able to:			
CO1	Acquire the concept of hospital organization, drug stores and role of pharmacist in hospital.	Apply	Factual & Conceptual
CO2	Explore the drug distribution system in hospital, hospital formulary, therapeutic drug monitoring and medical adherence.	Apply	Factual & Conceptual
CO3	Illustrate the pharmacy and therapeutic committee to maintain the drug safety and medication error.	Apply	Factual & Conceptual
CO4	Illustrate the implementation of budget in pharmacy and rational use of OTC medications.	Apply	Factual & Conceptual
CO5	Explore various estimation of blood compositions and urine in clinical set-up.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Outcome BP703T	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3					3			1		1
CO2	3					3			1		1
CO3	3					2			1		1
CO4	3					3			2		1
CO5	3					3			2		1
PO Target	3					2.8			1.4		1

Signature of CO Coordinator

Dr. Shardendu Kumar Mishra



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 ODD semester

Program: B. Pharm

Semester: 7

Course: Novel Drug Delivery Systems

Course Code: BP704T

Course Instructors: Prof. (Dr). N. G. Raghavendra Rao and Dr. Lakshmi

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand basic concepts related to various Novel drug delivery systems.	Understand	Factual, Conceptual, Procedural
CO2	Analyze various novel drug delivery systems.	Analyze	Conceptual, Procedural
CO3	Examine various approaches for development of various Novel drug delivery systems.	Apply	Conceptual, Procedural
CO4	Apply different methods for development of novel drug delivery systems for various drugs.	Apply	Conceptual, Procedural
CO5	Apply Novel drug delivery systems for various medical conditions.	Apply	Conceptual, Procedural

Mapping of COs with POs

Course Code:											
BP704T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2	1	1	-	-	-	-	1	-	1
CO2	3	2	1	-	-	-	-	-	1	-	1
CO3	3	3	2	1	1	-	-	-	1	-	1
CO4	3	3	3	1	-	-	-	-	1	2	1
CO5	3	3	2	1	-	-	-	-	2	1	1
PO Target	3	2.6	1.8	1	1	-	-	-	1.2	1.5	1

Signature of CO- Coordinator

Lakshmi

[Signature]

[Signature]



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 7

Course- Instrumental Methods of Analysis (Practical)

Course Code- BP705P

Course Instructors- Dr. Garima Kapoor and Ms. Shipra Singhal

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Analyze the graphs of absorption maxima and effect of solvents in different organic compounds.	Analyze	Conceptual & procedural
CO2	Evaluate different organic compounds using colorimetry, fluorimetry and UV spectroscopy.	Evaluate	Conceptual & procedural
CO3	Demonstrate the working of HPLC, Gas chromatography and flame photometry.	Analyze	Conceptual & procedural
CO4	Illustrate the process of separation of various compounds using different chromatographic techniques.	Analyze	Conceptual & procedural

Mapping of COs with POs

Course Code:											
BP705P	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	1	3	1	2	-	2	-	-	1
CO2	3	1	1	3	1	2	-	2	-	-	1
CO3	3	1	1	3	1	2	-	2	-	-	1
CO4	3	1	1	3	1	2	-	2	-	-	1
PO Target	3	1	1	3	1	2	-	2	-	-	1

Signature of CO- Coordinator



KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2022-23 Odd semester

Program- B. Pharm

Semester- 7

Course- Practice School

Course Code- BP706PS

Course Instructors- Dr. K. Nagarajan, Dr. Daksh Bhatia, Dr. Vaishali M. Patil, Mr. Anuj Pathak, Mr. Sanjeev Chauhan, Mr. Surya Prakash, Mr. Debaprasad Ghosh, Ms. Vidhu Saxena, Dr. Lakshmi, Dr. Garima Kapoor, Ms. Shipra Singhal, Mr. Pankaj Bhatt, Ms. Sakshi Garg, Dr. Shardendu Kumar Mishra, Ms. Dr. Neha, Mr. Balwan,

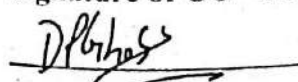
Tagging COs with BLs & KCs

CO No.	Statement of Course Outcome	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the rationale behind undergoing the practice school in a specific thrust area of pharmacy.	Understand	Factual & Conceptual
CO2	Acquire expertise in data mining, reviewing, and processing for a particular thrust area.	Apply	Conceptual & Procedural
CO3	Analyze the implementation of available technology or development of new strategies to cater the needs under consideration.	Analyze	Conceptual & Procedural
CO4	Evaluate the potential role of new findings and their conversion into suitable solution.	Evaluate	Conceptual & Procedural
CO5	Create modern pharmaceuticals or alternate therapeutic systems or new analytical method or any other labeled horizon in the area of work.	Create	Conceptual & Procedural

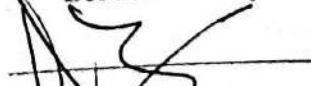
Mapping of COs with POs

Course Code:											
BP303T	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2	2	-	-	1	1	-	1	-	2
CO2	3	2	2	1	-	1	1	-	1	-	2
CO3	3	2	2	3	-	1	1	-	1	-	2
CO4	3	2	2	2	-	1	1	-	1	-	2
CO5	3	2	2	2	-	1	1	-	1	-	2
PO Target	3	2	2	2	-	1	1	-	1	-	2

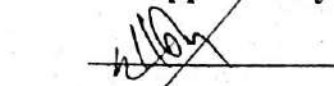
Signature of CO- Coordinator


Mr. D.P. Ghosh

Scrutinized by


Dr. Daksh Bhatia

Approved by


Prof. (Dr.) K. Nagarajan

