KIET SCHOOL OF PHARMACY

KIET GROUP OF INSTITUTIONS

Minutes of the BoS meeting held on 09-09-2021 in Principal's office (KSOP)

Agenda: Approval of CO-PO statements and CO-PO mappings for B. Pharm Programme Odd semester 2021-22

Members Present

1)	Prof. (Dr.) K. Nagarajan	:	Principal- KSOP (Convener & Member BoS)
2)	Prof. (Dr.) NGR Rao	:	Additional Head- KSOP (Member BoS)
3)	Prof. (Dr.) Ashu Mittal	:	(Member BoS & Faculty Co-ordinator OBE)
4)	Dr. Daksh Bhatia	:	(Member BoS and Assistant Head-OBE)
5)	Dr. Vaishali M Patil	:	(Member BoS)
6)	Dr. Roma Ghai	:	(Member BoS)
7)	Mr. Himanshu Aggarwal	:	Faculty Co-ordinator OBE

Minutes of the Meeting:

1) Prof. Nagarajan welcomed everyone to the meeting and emphasised on the importance of OBE in technical education and the OBE practices to be followed religiously.
2) All departmental heads submitted the evaluated CO- statements and Mappings with minor revisions.
3) Faculty members were handed over with the CO- statements and mappings to incorporate the changes suggested by the BoS and to resubmit them at the earliest to the OBE coordinator.
4) Prof. Nagarajan congratulated everyone for the adoption of OBE practices and closed the meeting.

Signature:

Prof. (Dr.) K. Nagarajan	
Prof. (Dr.) NGR Rao	
Prof. (Dr.) Ashu Mittal	
Dr. Daksh Bhatia	
Dr. Vaishali M Patil	
Dr. Roma Ghai	
Mr. Himanshu Aggarwal	

KSOP PRACTICAL- COURSE OUTCOMES APPROVAL BOS MEETING (ODD SEMESTER)

Year	Course Code	Course	CO- Coordinator	Approved/ Not Approved
I	BP107P	Human Anatomy and Physiology – Practical	Mr. Praveen	A
	BP108P	Pharmaceutical Analysis I – Practical	Ms.Tanya	A
	BP109P	Pharmaceutics I – Practical	Dr. Rao	A
	BP110P	Pharmaceutical Inorganic Chemistry– Practical	Mr. Surya	A
	BP111P	Communication Skills – Practical	Dr. Soniya Verma	A
	BP112RBP	Remedial Biology– Practical	Mr. Harsh Rastogi	A
II	BP305P	Pharmaceutical Organic Chemistry II – Practical	Ms. Shipra	A.
	BP306P	Physical Pharmaceutics I – Practical	Mr. Ghosh	A
	BP307P	Pharmaceutical Microbiology– Practical	Mr. Kanishk	A
	BP308P	Pharmaceutical Engineering –Practical	Mr. Sanjeev	A
III	BP506P	Industrial Pharmacy I– Practical	Dr.Lakshmi	A
	BP507P	Pharmacology II – Practical	Dr. Abhishek	A
	BP508P	Pharmacognosy and Phytochemistry II – Practical	Dr. Deepti	A
	BP509P	Report on Hospital Training-I	NA	NA
IV	BP705P	Instrumental Methods of Analysis	Dr. Garima	A

Signature BoS

Prof. (Dr) K. Nagarajan	9/9/21	Dr. Daksh Bhatia	
Prof. (Dr) NGR Rao		Dr. Vaishali M. Patil	
Prof. (Dr.) Ashu Mittal		Dr. Roma Ghai	

KSOP THEORY- COURSE OUTCOMES APPROVAL BOS MEETING (ODD SEMESTER)

Year	Course Code	Course	CO- Coordinator	BOS Remarks
I	BP101T	Human Anatomy and Physiology	Ms.Priya	A
	BP102T	Pharmaceutical Analysis I	Ms.Tanya	A
	BP103T	Pharmaceutics I	Ms.Monika K	A
	BP104T	Pharmaceutical Inorganic Chemistry	Dr.Deepti	A
	BP105T	Communication Skills	Dr. Priyanka Sharma	A
	BP106RBT	Remedial Biology	Mr. Harsh Rastogi	A
	BP106RMT	Remedial Mathematics	Dr. Barkha	A
II	BP301T	Pharmaceutical Organic Chemistry II	Ms.Shipra	A
	BP302T	Physical Pharmaceutics I	Ms.Kiran	A
	BP303T	Pharmaceutical Microbiology	Mr.Himanshu	A
	BP304T	Pharmaceutical Engineering	Dr.Alankar	A
	KVE301	Universal Human Values and Professional Ethics	Mr.Praveen	A
III	BP501T	Medicinal Chemistry II	Dr.Anjleena	A
	BP502T	Industrial Pharmacy I	Dr.Lakshmi	A
	BP503T	Pharmacology II	Dr.Abhishek	A
	BP504T	Pharmacognosy II	Dr.Richa	A
	BP505T	Pharmaceutical Jurisprudence	Dr.Garima	A
IV	BP701T	Instrumental Methods of Analysis	Dr.Vaishali	A
	BP702T	Industrial Pharmacy II	Ms.Vidhu	A
	BP703T	Pharmacy Practice	Mr.Ghosh	A
	BP704T	Novel Drug Delivery System	Dr. Lakshmi	A

Signature BoS

Prof. (Dr) K. Nagarajan		Dr. Daksh Bhatia	
Prof. (Dr) NGR Rao		Dr. Vaishali M. Patil	
Prof. (Dr.) Ashu Mittal		Dr. Roma Ghai	

KSOP THEORY SUBJECTS ALLOCATION (ODD SEM 2021-22) 07/08/2021

Year	Subject	Sec-A	Sec-B
I-Year	Human Anatomy and Physiology (I-Year)	Mr.Praveen	Ms.Priya
	Pharmaceutical Analysis I (I-Year)	Ms.Tanya	Dr.Abhay
	Pharmaceutics I (I-Year)	Mr.Sanjeev	Ms.Monika K
	Pharmaceutical Inorganic Chemistry (I-Year)	Dr.Deepti	Mr.Surya
	Communication Skills (I-Year)	Dr.Preeti Chitkara	Dr.Chetna Sinha
	Remedial Biology (I-Year)	Dr.Vinay/Mr. Harsh	
	Remedial Mathematics (I-Year)	Dr. Barkha Rohtagi	Dr. Richa Agarwal
II-Year	Pharmaceutical Organic Chemistry II (II-Year)	Ms.Shipra	Ms.Tanya
	Physical Pharmaceutics I (II-Year)	Mr.Ghosh	Ms.Kiran
	Pharmaceutical Microbiology (II-Year)	Mr.Kanishk	Mr.Himanshu
	Pharmaceutical Engineering (II-Year)	Mr.Sanjeev	Dr.Alankar
	Universal Human Values and Professional Ethics (II-Year)	Mr.Praveen	Dr.Daksh
III-Year	Medicinal Chemistry II (III-Year)	Dr.Anjleena	Dr.Garima
	Industrial Pharmacy I (III-Year)	Dr.Ashu	Dr.Lakshmi
	Pharmacology II (III-Year)	Ms.Priya	Dr.Abhishek
	Pharmacognosy II (III-Year)	Dr.Richa	Dr.Deepti
	Pharmaceutical Jurisprudence (III-Year)	Dr.Garima	Ms.Monika K
IV-Year	Instrumental Methods of Analysis (IV-Year)	Ms.Shipra	Dr.Vaishali
	Industrial Pharmacy II (IV-Year)	Ms.Vidhu	Mr. Pankaj
	Pharmacy Practice (IV-Year)	Dr. Sukesh	Mr.Ghosh
	Novel Drug Delivery System (IV-Year)	Dr.Rao	Dr.LAkshmi
	Phytomedicine Elective (IV-Year)	Dr.Daksh	
	Formulation development Elective (IV-Year)	Mr.Anuj	
	Drug design and process chemistry Elective (IV-Year)	Mr.Surya	
	Alternative medicine Elective (IV-Year)	Dr.Roma	
	Artificial Intelligence	Mr.Kanishk	
PG-Pharmaceutics	Modern Pharmaceutical Analytical Techniques (PG Pharmaceutics)	Dr.Parul	
	Drug Delivery System (PG Pharmaceutics)	Dr. Rao	
	Modern Pharmaceutics (PG Pharmaceutics)	Dr.Ashu	
	Regulatory Affairs (PG Pharmaceutics)	Mr.Anuj	
PG-Pharmacology	Modern Pharmaceutical Analytical Techniques (PG Pharmacology)	Dr.Abhay	
	Advanced Pharmacology-I (PG Pharmacology)	Dr.Vinay	
	Pharmacological and Toxicological Screening Methods-I (PG Pharmacology)	Dr.Roma	
	Cellular and Molecular Pharmacology (PG Pharmacology)	Mr.Himanshu	
PG-QA	Modern Pharmaceutical Analytical Techniques (PG- QA)	Dr.K.Nagarajan	
	Quality Management System (PG- QA)	Ms.Kiran	
	Quality Control and Quality Assurance (PG- QA)	Dr.Alankar	
	Product Development and Technology Transfer (PG- QA)	Dr.Anjleena	
M.Pharm III-Sem	Research Methodology (PG-III sem)	1&5 Units	Dr.Parul
		Unit no-2	ASH Dept
		3&4 Units	Dr.Abhishek

KIET SCHOOL OF PHARMACY ★ GHAZIABAD ★

KIET SCHOOL OF PHARMACY

TARGET BENCHMARK SUMMARY (2021-22 ODD SEMESTER)

Sem.	SUBJECT Code	NAME OF THE SUBJECT	CO-COORDINATOR	PROPOSED INTERNAL BENCHMARK	PROPOSED EXTERNAL BENCHMARK
1	BP101T	Human Anatomy and Physiology– Theory	Dr. Praveen Kr. Dixit	55	50
1	BP102T	Pharmaceutical Analysis I – Theory	Dr Abhay Bhardwaj	50	50
1	BP103T	Pharmaceutics I – Theory	Mr Sanjeev Chauhan	55	55
1	BP104T	Pharmaceutical Inorganic Chemistry– Theory	Dr Deepti Katiyar	50	50
1	BP105T	Communication Skills – Theory	Dr Priyanka Sharma/Dr	50	NA
1	BP106RBT	Remedial Biology	Dr Vinay	50	NA
1	BP106RMT	Mathematics – Theory	Dr Barkha	50	NA
1	BP107P	Human Anatomy and Physiology– I(Practical)	Mr Praveen kumar Dixit	70	70
1	BP108P	Pharmaceutical Analysis Practical	Ms Tanya	70	70
1	BP109P	Pharmaceutics I – Practical	Ms Monika	70	70
1	BP110P	Pharmaceutical Inorganic Chemistry	Mr Surya Prakash	60	60
1	BP111P	Communication Skills – Practical	Ms Priyanka Sharma	60	NA
1	BP112RBP	Remedial Biology - Practical	Dr Vinay	70	NA
3	BP301T	Pharmaceutical Organic Chemistry II – Theory	Ms. Shipra Singhal	55	56
3	BP302T	Physical Pharmaceutics I – Theory	Dr Kiran Sharma	50	50
3	BP303T	Pharmaceutical Microbiology – Theory	Mr Kanishk	55	55
	BP304T	Pharmaceutical Engineering – Theory	Mr Sanjeev Chauhan	56	56
3	BP305P	–Practical	Ms Tanya	70	70
	BP306P	Physical Pharmaceutics I –Practical	Mr DP Ghosh	70	70
	BP307P	Pharmaceutical Microbiology – Practical	Mr Kanishk	70	70
	BP308P	Pharmaceutical Engineering –Practical	Dr Alankar	70	70
3	KVE301	Universal Human Values and Professional Ethics	Dr. Praveen Kr. Dixit	50	50
5	BP501T	Medicinal Chemistry- Theory	Dr Anjleena	55	55
5	BP502T	Industrial Pharmacy I – Theory	Dr. Ashu Mittal	50	55
5	BP503T	Pharmacology II – Theory	Ms Priya	50	50
5	BP504T	Pharmacognosy and Phytochemistry – Theory	Dr Richa	50	50
5	BP505T	Pharmaceutical Jurisprudence – Theory	Dr Garima Kapoor	55	51
5	BP506P	Industrial Pharmacy I –Practical	Dr Lakshmi	70	70
5	BP507P	Pharmacology II –Practical	Dr. Abhishek Kumar	65	65
5	BP508P	Pharmacognosy and Phytochemistry – Practica	Dr Richa	70	70
7	BP701T	Instrumental Methods of Analysis – Theory	Ms Shipra Singhal	60	50
7	BP702T	Industrial Pharmacy II – Theory	Ms Vidhu Saxena	49	51
7	BP703T	Pharmacy Practice – Theory	Dr Sukesh	50	50
7	BP704T	Novel Drug Delivery System (NDDS) – Theory	Dr NG Rao	50	60
7	BP705P	Instrumental Methods of Analysis –Practical	Ms Shipra Singhal	70	70
7	BP706PS	Practice School	Dr Daksh Bhatia	70	NA
7	BP707P	Report on Hospital/Industrial Training	Ms Vidhu Saxena	70	70

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

KIET SCHOOL OF PHARMACY * GHAZIABAD *

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- I**

Course- Human Anatomy and Physiology **Course Code-BP-101T**

Course Instructors-Mr. Praveen Kumar Dixit/Ms. Priya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Remember	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.	Remember	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 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

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-1**

Course- Pharmaceutical Analysis-1 **Course Code-BP-102T**

Course Instructors- Dr. Abhay/Ms. Tanya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Evaluate	Factual & Conceptual
CO3	Demonstrate the basics and concepts of precipitation, complexometric, gravimetry and diazotization 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	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	-	2	3	-	2	1	-	2	-	3
CO2	3	-	2	2	-	2	1	-	2	-	3
CO3	3	-	2	3	-	2	1	-	2	-	3
CO4	3	-	2	3	-	1	1	-	2	-	2
CO5	3	-	2	3	-	2	1	-	2	-	3
PO Target	**3**	**-**	**2**	**2.80**	**-**	**1.80**	**1**	**-**	**2**	**-**	**2.80**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-1**

Course- Pharmaceutics-1 **Course Code-BP103T**

Course Instructors- Mr. Sanjeev/Ms. Monika

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Categ.y (KC)
After completion of the course, the student will be able to			
CO1	Explain the Historical background and development of profession of pharmacy.	Understand	Factual & Conceptual
CO2	Explain the basics and classification of solid and liquid dosage forms.	Understand	Factual & Conceptual
CO3	Classify the different types of liquid dosage forms in details.	Understand	Factual & Conceptual
CO4	Summarize the different type of semisolid dosage forms in details.	Create	Factual & Conceptual
CO5	Outline the significance of posology, prescription, and pharmaceutical calculations.	Remember	Factual & Conceptual
CO6	Summarize the definition and classification of different types of pharmaceutical incompatibilities.	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	-	2	-	2	2	2	-	3	-	3
CO2	3	-	2	-	2	2	2	-	3	-	3
CO3	3	-	2	-	2	2	2	-	3	-	3
CO4	3	-	2	-	2	2	2	-	3	-	3
CO5	3	-	2	-	2	2	2	-	3	-	3
CO6	3	-	2	-	2	2	2	-	3	-	3
PO Target	**3**	-	**2**	-	**2**	**2**	**2**	-	**3**	-	**3**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 1**

Course- Pharmaceutical Inorganic Chemistry **Course Code-BP104T**

Course Instructors- Dr. Deepti/Mr. Surya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	Factual & Conceptual
CO2	Explain buffers, major intra and extracellular electrolytes used in combination therapy including ORS and dental Products.	Understand	Factual & Conceptual
CO3	Describe the various inorganic gastrointestinal agents and antimicrobials.	Understand	Factual & Conceptual
CO4	Understand the expectorants, emetics, haematinics and antidotes used in inorganic pharmaceuticals.	Understand	Factual & Conceptual
CO5	Elaborate the radiopharmaceuticals, there handling and precautions.	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	-	3	-	-	-	-	-	3	3	3
CO2	3	-	3	-	-	-	-	-	3	2	3
CO3	3	-	3	-	-	-	-	-	3	-	3
CO4	3	-	3	-	-	-	-	-	3	-	3
CO5	3	2	3	2	1	-	-	-	3	3	3
PO Target	**3**	**2**	**3**	**2**	**1**	**-**	**-**	**-**	**3**	**2.67**	**3**

Deepti S.P

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- I**

Course- Communication Skills **Course Code-BP105T**

Course Instructors- Dr. Chetna / Dr. Priyanka.

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Apply	Factual & Conceptual
CO2	Practice the verbal & Non-verbal communication skills including the cognition of various communication style matrix.	Apply	Factual & Conceptual
CO3	Express his/her self-confidence with improved command over the dimensions of LSRW.	Understand	Factual & Conceptual
CO4	Exercise the key principles of effective presentation techniques.	Apply	Factual & Conceptual
CO5	Analyze, comprehend, converse, interact and participate at multinational levels in day-to-day events and situation with cohesive arguments to reach a consensus.	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	-	-	-	-	1	-	-	3	1	1	2
CO2	-	-	-	-	-	-	-	3	1	1	2
CO3	-	-	-	-	2	-	-	3	1	1	2
CO4	-	-	-	-	-	-	-	3	1	2	2
CO5	-	-	-	-	3	-	-	3	-	1	2
PO Target	-	-	-	-	**2**	-	-	**3**	**1**	**1.20**	**2**

Chetna

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 1**

Course- Remedial Biology **Course Code-BP106RBT**

Course Instructors- Dr. Vinay/Dr. Richa

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 & Conceptual
CO2	Explain the concept of Body fluids, circulatory system, digestive system and respiration system.	Analyze	Factual & Conceptual
CO3	The basic concepts of excretory system, human reproduction system, neural, chemical control and coordination	Remember	Factual & Conceptual
CO4	Express the basic concept of plant nutrition and nitrogen metabolism with the process of photosynthesis.	Apply	Factual & Conceptual
CO5	Elaborate about plant cell and tissues with the mechanism of plant respiration, its growth and development.	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	1	-	-	-	-	-	-	-	-	2	3
CO2	3	-	-	-	-	1	-	1	-	-	2
CO3	3	-	-	-	-	1	-	1	-	-	2
CO4	1	-	-	-	-	-	-	-	-	3	3
CO5	1	-	-	-	-	-	-	-	-	2	3
PO Target	**1.80**	**-**	**-**	**-**	**-**	**1**	**-**	**1**	**-**	**2.33**	**2.60**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-I**

Course-Remedial Mathematics **Course Code-BP106RMT**

Course Instructors- Dr. Barkha

Tagging Cos with BLs & KCs

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

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 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**	**1.50**	**1**	**-**	**1**	**1**	**-**	**1**	**-**	**1**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- I**

Course- Human Anatomy and Physiology **Course Code-BP107P**

Course Instructors- Mr. Praveen/Ms. Priya

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcomes	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	Factual & Conceptual
CO2	Illustrate the concept for identification of various types of bones and joints under the background of their anatomical correlation.	Analyze	Factual & Conceptual
CO3	Assess the methods and techniques to measure the various components of blood.	Evaluate	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	-	-	2	-	-	-	1	2	-	2
CO2	3	-	-	2	-	-	-	1	2	-	2
CO3	3	-	-	2	-	-	-	1	2	-	2
PO Target	3	-	-	2	-	-	-	1	2	-	2

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 1**

Course- Pharmaceutical Analysis-1 **Course Code-BP108P**

Course Instructors-Ms. Tanya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	Factual & Conceptual
CO2	Elaborate the standardization of the given strength of molecules in Pharmaceuticals.	Understand	Factual & Conceptual
CO3	Explain the assay of given samples of pharmaceutical molecules.	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	-	3	-	-	-	-	-	3	3	3
CO2	3	-	3	-	-	-	-	-	3	2	3
CO3	3	-	3	-	-	-	-	-	3	-	3
PO Target	**3**	-	**3**	-	-	-	-	-	**3**	**2.50**	**3**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-I**

Course- Pharmaceutics-1 Practical **Course Code-BP109P**

Course Instructors- Ms. Monika

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Practice the preparation and dispensing of the liquid dosage form.	Apply	Factual & Conceptual
CO2	Demonstrate and assess the preparation and dispensing of semisolid dosage forms	Apply	Factual & Conceptual
CO3	Demonstrate the preparation and dispensing of different types of powders.	Apply	Factual & Conceptual

Mapping of COs with POs

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

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester I-**

Course-Pharmaceutical Inorganic Chemistry Practical **Course Code-BP110P**

Course Instructors- Mr. Surya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Analyze	Conceptual & Procedural
CO3	Elaborate the Preparation pharmaceuticals and their assays of inorganic Pharmaceuticals and their assays.	Understand	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	3	1	1	-	1	1	3	2	3
CO2	3	1	3	1	1	-	1	1	3	2	3
CO3	3	1	3	1	1	-	1	1	3	2	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- 2021-22 Odd Semester

Program- B. Pharm.

Semester- 1

Course- Communication Skills

Course Code-BP111P

Course Instructors-Dr Priyanka Sharma

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	Factual, Conceptual
CO2	Apply the pronunciation etiquette to build the self- confidence with improved command over the mechanics of English language.	Apply	Factual, Conceptual
CO3	Practice both formal effective verbal and non-verbal communication skills to make information more accessible to the audience.	Apply	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1								3	3	3	2
CO2								3	2	3	2
CO3								3	2	3	2
PO Target								3	2.33	3	2

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- I**

Course- Remedial Biology Practical **Course Code-BP112RBP**

Course Instructors- Dr. Vinay

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	Conceptual & Procedural
CO2	Explain various parts of plants.	Understand	Conceptual & Procedural
CO3	Examine the tissues pertinent to Stem, Root, Leaf, seed, fruit and flower and bones.	Apply	Conceptual & Procedural
CO4	Determine the blood group, blood pressure and tidal volume in human	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	-	-	2	-	-	-	-	1	-	2
CO2	3	-	-	-	-	-	-	1	1	1	2
CO3	3	-	-	1	-	-	-	-	1	-	2
CO4	3	-	-	2	-	-	-	1	2	-	2
PO Target	**3**	**-**	**-**	**1.67**	**-**	**-**	**-**	**1**	**1.25**	**1**	**2**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course-Pharmaceutical Organic Chemistry-II **Course Code-BP301T**

Course Instructors- Ms. Shipra

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Analyze	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.	Analyze	Factual & Conceptual
CO5	Illustrate the structure, properties, chemical reactions and uses of cycloalkanes.	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	-	2	2	-	2	1	-	2	-	3
CO2	3	-	2	2	-	2	1	-	2	-	3
CO3	3	-	2	2	-	2	1	-	2	-	3
CO4	3	-	2	2	-	2	1	-	2	-	3
CO5	3	-	2	2	-	2	1	-	2	-	3
PO Target	**3**	-	**2**	**2**	-	**2**	**1**	-	**2**	-	**3**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Physical Pharmaceutics-I **Course Code-BP302T**

Course Instructors- Ms. Kiran Sharma

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 drugs.	Apply	Factual & Conceptual
CO2	Analyze states of Matter, properties of matter and physicochemical properties of drug molecules.	Analyze	Factual & Conceptual
CO3	Determine about surface / interfacial phenomenon.	Understand	Factual & Conceptual
CO4	Outline complexation with protein binding.	Analyze	Factual & Conceptual
CO5	Illustrate about buffers and Isotonic solutions.	Apply	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	2	1	1	1	1	1	1	1	2
CO2	3	1	2	1	1	1	1	1	1	1	2
CO3	3	1	2	2	1	1	1	1	1	2	2
CO4	3	1	2	2	1	1	1	1	1	2	2
CO5	3	1	2	1	1	1	1	1	1	1.40	2
PO Target	3	1	2	1.40	1	1	1	1	1	1.40	2

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Pharmaceutical Microbiology **Course Code-BP303T**

Course Instructors- Mr. Kanishk/Mr. Himanshu

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Explain the classification, cultivation, and replication of different classes of micro-organisms	Understand	Factual & Conceptual
CO2	Explain various microscopic, staining and sterilization techniques used in microbial studies.	Understand	Factual & Conceptual
CO3	Describe the sterility testing of pharmaceutics (as per pharmacopoeia) and evaluation of disinfectants.	Understand	Factual & Conceptual
CO4	Examine the significance of aseptic area classification and designing.	Apply	Factual & Conceptual
CO5	Explore the methods of biological products standardization and preservation.	Analyze	Factual & Conceptual
CO6	Determine the process and applications of cell culture in pharmaceutical research.	Evaluate	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	-	3	3	-	3	-	-	-	3	3
CO2	3	-	3	3	-	3	-	-	-	3	3
CO3	3	3	3	3	-	3	3	-	3	3	3
CO4	3	3	3	3	-	3	-	-	3	3	3
CO5	3	3	3	3	-	3	3	-	3	3	3
CO6	3	-	3	3	-	3	3	-	3	3	3
PO Target	**3**	**3**	**3**	**3**	**-**	**3**	**3**	**-**	**3**	**3**	**3**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Pharmaceutical Engineering **Course Code-BP304T**

Course Instructors- Mr. Sanjeev/Dr. Alankar

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 unit operations of and related of equipments in the pharmaceutical industry	Understand	Factual & Conceptual
CO2	Classify various equipments used in different unit operations	Analyze	Factual & Conceptual
CO3	Examine various approaches for to perform different processes involved in pharmaceutical manufacturing process.	Apply	Factual & Conceptual
CO4	Apply different unit operations for processing of pharmaceutical products.	Examine	Factual & Conceptual
CO5	Justify selection of different material for pharmaceutical plant construction, corrosion and its prevention	Evaluate	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	2	-	1	1	1	-	-	2	1
CO2	3	1	2	-	1	1	1	-	-	2	1
CO3	3	1	2	-	1	1	1	-	-	2	1
CO4	3	1	2	-	1	1	1	-	-	2	1
CO5	3	1	2	-	1	1	1	-	-	2	1
PO Target	**3**	**1**	**2**	-	**1**	**1**	**1**	-	-	**2**	**1**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Pharmaceutical Organic Chemistry-II Practical **Course Code-BP305P**

Course Instructors- Ms. Tanya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
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

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Physical Pharmaceutics-1 Practical **Course Code-BP306P**

Course Instructors- Mr. DP Ghosh

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 drug at room temperature and % composition of NaCl in a solution using phenol-water system by CST method.	Evaluate	Conceptual & Procedi ral
CO2	Determine the partition co- efficient of benzoic acid in benzene / water system and Iodine in CCl4 /water system, the Freundlich-Langmuir constants using activated char coal and the stability constant and donor acceptor ratio of PABA-Caffeine complex by solubility method and stability constant and donor acceptor ratio of Cupric-Glycine complex by pH titration method	Apply	Conceptual & Procedural
CO3	Evaluate the surface tension of given liquids by drop count and drop weight method, HLB number of a surfactant by saponification method and critical micellar concentration of surfactants.	Asses	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	PO 1	PO 2	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
PO Target	**3**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**2**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Pharmaceutical Microbiology Practical **Course Code-BP307P**

Course Instructors- Mr Kanishk

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Demonstrate the methods of sterilization and microbial culture.	Apply	Conceptual & Procedural
CO2	Demonstrate the methods of bacterial isolation and staining.	Apply	Conceptual & Procedural
CO3	Determine the microbial presence in pharmaceutical products and water using biochemical assay methods.	Apply	Conceptual & Procedural

Mapping of COs with POs

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

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Pharmaceutical Engineering Practical **Course Code-BP308P**

Course Instructors- Dr. Alankar

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO2	Demonstrate the process & factors affecting filtration and centrifugation.	Apply	Conceptual & Procedural
CO3	Demonstrate the process & principles of drying and evaporation.	Apply	Conceptual & Procedural
CO4	Handle various pharmaceutical equipments like FBD, fluid energy mill, Ball mill, Colloidal mill, planetary mixer & Freeze dryer.	Apply	Conceptual & Procedural
CO5	Demonstrate the process and principles of crystallization and distillation	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO2	2	3	1	-	-	2	-	2	1	-	-
CO3	2	3	1	-	-	2	-	2	1	-	-
CO4	2	3	1	-	-	2	-	2	1	-	-
CO5	1	3	1	-	-	2	-	2	1	-	-
PO Target	1.75	3	1	-	-	2	-	2	1	-	-

Ashirwadha

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 3**

Course- Universal Human Value & Professional Ethics **Course Code-KVE-301**

Course Instructors- Mr. Praveen/Dr. Daksh

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Categ.y (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	Factual & Conceptual
CO2	Explore the concept of harmony in the human being (in Myself) being 'I' & 'body' as separate entity.	Apply	Factual & Conceptual
CO3	Ensure the concept 'harmony' in the family and society keeping family as part of undivided society.	Analyze	Factual & Conceptual
CO4	Appraise harmony in the nature and existence imbibing the role of individuals in maintaining the harmony within.	Evaluate	Factual & Conceptual
CO5	Interpret the holistic approach of harmony in relation with Professional Ethics.	Evaluate	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 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	1.80	3	-	2	3	2

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course- Medicinal Chemistry-II **Course Code-BP501T**

Course Instructors- Dr. Anjleena/Dr. Garima

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Classify the antihistaminic agents along with their mechanism of action and SAR.	Understand	Factual & Conceptual
CO2	Illustrate classification, mechanism of action and SAR of Antineoplastic agents.	Apply	Factual & Conceptual
CO3	Determine the classes, mechanism of action and SAR of different categories of cardiovascular agents.	Apply	Factual & Conceptual
CO4	Illustrate classification, mechanism of action and SAR of various categorics of drugs associated endocrine system.	Apply	Factual & Conceptual
CO5	Classify the drugs, mechanism of action and SAR of local anesthetic agents.	Understand	Factual & Concept

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	2	-	-	-	-	2	-	-	2	-	1
CO2	2	-	-	-	-	2	-	-	2	-	1
CO3	2	-	-	-	-	2	-	-	2	-	1
CO4	2	-	-	-	-	2	-	-	2	-	1
CO5	2	-	-	-	-	2	-	-	2	-	1
PO Target	**2**	-	-	-	-	**2**	-	-	**2**	-	**1**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course-Industrial Pharmacy-1 **Course Code-BP502T**

Course Instructors- Dr. Ashu/Dr. Lakshmi

Tagging Cos with BLs & KCs

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

Mapping of COs with POs

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

Lakshmi

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course- Pharmacology-II **Course Code-BP503T**

Course Instructors- Ms. Priya/Dr. Abhishek

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	Apply	Factual & Conceptual
CO2	Illustrate the pharmacology of drugs acting on urinary system	Apply	Factual & Conceptual
CO3	Examine the pharmacological and physiological roles of autacoids and drugs acting on their receptors	Apply	Factual & Conceptual
CO4	Determine the pharmacology of drugs acting on endocrine system	Apply	Factual & Conceptual
CO5	Classify bioassays and illustrate bioassay of specific drugs	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	-	2	-	1	2	-	2	1	1	3
PO Target	**3**	-	**1.20**	-	**1**	**2**	-	**2**	**2.60**	**1**	**3**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-5**

Course-Pharmacognosy-II **Course Code-BP504T**

Course Instructors- Dr. Richa/Dr. Deepti

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Add	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	Factual & Conceptual
CO4	Understand the industrial applications of the mentioned phytoconstituents	Add	Factual & Conceptual
CO5	Compare various methods for extraction, isolation and purification of phytoconstituents	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
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**	**1**	**2**	**3**	-	-	-	-	-	-	**2**

Deepti

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course-Pharmaceutical Jurisprudence **Course Code-BP-505T**

Course Instructors- Dr. Garima/Ms. Monika

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the rules and regulations defined under the Drugs and Cosmetics act 1945.	Apply	Factual & Conceptual
CO2	Illustrate the regulation by Pharmacy Act, Medicinal and Toilet Preparations Act-1955 and Narcotics Narcotic Drugs and Psychotropic Substances Act 1948 and Rules.	Apply	Factual & Conceptual
CO3	Examine 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	Determine the rules and regulations under medical termination of pregnancy act, RTI act and IPR.	Apply	Factual & Conceptual
CO6	Illustrate the rules and regulations defined under the Drugs and Cosmetics act 1945.	Apply	

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	-	2	-	1	2	2	-	1	-	1
CO2	3	-	2	-	1	2	2	-	1	-	1
CO3	3	-	2	-	1	2	2	-	1	-	1
CO4	3	-	2	-	1	2	2	-	1	-	1
CO5	3	-	2	-	1	2	2	-	1	-	1
CO6	-	-	-	-	-	-	-	-	-	-	-
PO Target	**3**	**-**	**2**	**-**	**1**	**2**	**2**	**-**	**1**	**-**	**1**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course- Industrial Pharmacy-1 Practical **Course Code-BP506P**

Course Instructors- Dr. Lakshmi/Dr. Ashu

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Apply	Conceptual & Procedural
CO2	Prepare various dosage forms such as tablets, capsules, injections, eye ointments, eye drops and creams. Create Conceptual, Procedural	Create	Conceptual & Procedural
CO3	Evaluate tablets and capsules on various parameters	Appraise	Conceptual & Procedural
CO4	Formulate coated tablets/granules	Create	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
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**

Lakshmi

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course- Pharmacology-II Practical **Course Code-BP507P**

Course Instructors- Dr. Abhishek/Ms. Priya

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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	Apply	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

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	3	3	2	2	-	1	2	1	-	3
CO2	3	3	3	2	2	-	1	2	1	-	3
CO3	3	3	3	2	2	-	1	2	1	-	3
CO4	3	3	3	2	2	-	1	2	1	-	3
PO Target	**3**	**3**	**3**	**2**	**2**	**-**	**1**	**2**	**1**	**-**	**3**

Signature of CO-Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 5**

Course-Pharmacognosy-II Practical **Course Code-BP508P**

Course Instructors- Dr. Richa/Dr. Deepti

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Qualitative microscopical studies of crude drugs.	Apply	Factual & Conceptual
CO2	Extraction of crude drugs by various methods (Soxhlet, Sonication etc.)	Apply	Factual & Conceptual
CO3	Isolation of volatile Oils from medicinal plants	Apply	Factual & Conceptual
CO4	Evaluation of crude drugs on the basis of their identification tests	Evaluate	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	3	3	2	1	2	1	1	2	1	2
CO2	3	3	3	2	1	2	1	1	2	1	2
CO3	3	3	3	2	1	2	1	1	2	1	1
CO4	3	3	3	2	1	2	1	1	2	1	1
PO Target	**3**	**3**	**3**	**2**	**1**	**2**	**1**	**1**	**2**	**1**	**1.50**

Deepti

Signature of CO-Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 7**

Course- Instrumental Methods of Analysis-Theory **Course Code-BP701T**

Course Instructors- Ms. Shipra/Dr. Vaishali

Tagging COs with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Apply	Factual & Conceptual
CO2	Apply the basics and concepts of IR spectroscopy, flame photometry, atomic absorption spectroscopy, Nepheloturbidometry.	Apply	Factual & Conceptual
CO3	Demonstrate the basics and concepts of chromatography, TLC, paper chromatography, Electrophoresis.	Apply	Factual & Conceptual
CO4	Illustrate the basics and concepts of Gas chromatography and High-performance liquid chromatography.	Apply	Factual & Conceptual
CO5	Understand the basics and concepts of Ion exchange chromatography, Gel chromatography and Affinity chromatography.	Understand	Factual & Conceptual

Mapping of COs with POs

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

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 7**

Course- Industrial Pharmacy II- Theory **Course Code-BP702T**

Course Instructors- Ms. Vidhu/Mr. Pankaj

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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, SUPAC guidelines and platform technology in perspective of Indian Pharmaceutical setup	Understand	Factual & Conceptual
CO2	Differentiate various terminologies, guidelines for technology development and transfer along with different technology transfer agencies in India, in light of referring the basics of product development and commercialization	Understand	Factual & Conceptual
CO3	Outline regulatory affairs and various regulatory requirements for drug approval in context with regulatory framework of Pharma Industry	Analyze	Factual & Conceptual
CO4	Implement different aspects of Quality Management System in the capacity of quality product development	Apply	Factual & Conceptual
CO5	Determine Indian Regulatory Requirements	Apply	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	2	1	2	-	-	3	3	-	1	3
CO2	3	3	3	2	1	-	3	3	-	1	3
CO3	3	-	1	-	-	3	2	2	1	1	3
CO4	3	3	3	2	-	2	2	3	-	3	3
CO5	3	1	1	-	-	1	2	2	1	1	3
PO Target	**3**	**2.25**	**1.80**	**2**	**1**	**2**	**2.40**	**2.60**	**1**	**1.40**	**3**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 7**

Course- Pharmacy Practice- Theory **Course Code-BP703T**

Course Instructors- Dr. Sukesh/Mr. DP Ghosh

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Describe the basic concepts of hospital and its organization, Establishment of wholesale and retail drug store and role of pharmacist in hospital.	Understand	Factual & Conceptual
CO2	Illustrate the drug distribution system in hospital, Hospital formulary and Indian scenario for therapeutic drug monitoring and medical adherence to maintain the patient history.	Analyze	Factual & Conceptual
CO3	Illustrate the pharmacy policies and therapeutic committee to maintain the drug safety and medication error.	Analyze	Factual & Conceptual
CO4	Illustrate the Implementation of new budget in pharmacy and Rational use of OTC medications.	Analyze	Factual & Conceptual
CO5	Illustrate the Implementation of new budget in pharmacy and Rational use of OTC medications.	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	3	2	1	2	3	2	1	1	2	2
CO2	3	2	2	1	2	3	2	1	1	2	1
CO3	3	2	2	1	2	1	1	3	1	2	1
CO4	3	2	2	1	2	2	2	2	2	2	1
CO5	3	2	3	2	1	2	2	1	2	2	1
PO Target	**3**	**2.20**	**2.20**	**1.20**	**1.80**	**2.20**	**1.80**	**1.60**	**1.40**	**2**	**1.20**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 7**

Course- Novel Drug Delivery System (NDDS)-Theory **Course Code-BP704T**

Course Instructors- Dr. NGR Rao/Dr. Lakshmi

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Add	Factual & Conceptual
CO2	Analyze various novel drug delivery systems.	Analyze	Factual & Conceptual
CO3	Examine various approaches for development of various Novel drug delivery systems.	Analyze	Factual & Conceptual
CO4	Apply different methods for development of novel drug delivery systems for various drugs.	Apply	Factual & Conceptual
CO5	Apply Novel drug delivery systems for various medical conditions.	Apply	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	2	1	1	-	-	-	-	1	-	1
CO2	3	2	1	-	-	-	-	-	1	-	1
CO3	3	3	2	1	1	-	-	2	1	-	1
CO4	3	3	3	1	-	-	-	1	1	2	1
CO5	3	3	2	1	-	-	-	1	2	1	1
PO Target	**3**	**2.60**	**1.80**	**1**	**1**	-	-	**1.33**	**1.20**	**1.50**	**1**

Lakshmi

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 7**

Course-Instrumental Methods of Analysis/NDDS-Practical **Course Code-BP705P**

Course Instructors- Shipra Singhal

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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.	Apply	Conceptual & Procedural
CO4	Illustrate the process of separation of various compounds using different chromatographic techniques.	Apply	Conceptual & Procedural

Mapping of COs with POs

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

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-7**

Course- Practice School Formulation Development/AI/Alternative Medicine/Drug Design and Process Chemistry/Phytomedicine

Course Code-BP-706PS

Course Instructors- Dr. Daksh/Mr. Anuj/Mr. Surya/Dr. Roma/Mr. Kanishk

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the literatures associated with the project.	Understand	Factual & Conceptual
CO2	Illustrate experimental work of the project based on objectives of project.	Apply	Factual & Conceptual
CO3	Summarize and evaluate the outcomes of the project work	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	1	1	1	2
CO2	3	1	2	1	2	1	2	1	2	1	2
CO3	3	1	2	1	2	1	1	1	1	1	2
PO Target	3	1	2	1	2	1	1.33	1	1.33	1	2

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester-7**

Course-Report on Hospital/Industrial Training **Course Code-BP707P**

Course Instructors- Ms. Vidhu

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Extrapolate the different sections and different departments, rules and regulations of pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy	Understand	Factual & Conceptual
CO2	Explore the roles and responsibilities of pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy	Apply	Factual & Conceptual
CO3	Document the day-to-day learning as received in pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	1	3	-	1	2	1	1	1	3
CO2	3	1	1	3	-	1	3	1	1	1	3
CO3	3	1	-	3	-	3	-	3	1	1	2
PO Target	**3**	**1**	**1**	**3**	-	**1.67**	**2.50**	**1.67**	**1**	**1**	**2.67**

Signature of CO Coordinator

KIET SCHOOL OF PHARMACY

KIET GROUP OF INSTITUTIONS

Minutes of the BoS meeting held on 11-02-2022 in Principal's office (KSOP)

Agenda: Approval of CO-PO statements and CO-PO mappings and Targets for B. Pharm Programme **Even semester (Pre-final and Final year)** 2021-22.

Members Present

1)	Prof. (Dr.) K. Nagarajan	:	Principal- KSOP (Convener & Member BoS)
2)	Prof. (Dr.) NGR Rao	:	Additional Head- KSOP (Member BoS)
3)	Prof. (Dr.) Ashu Mittal	:	(Member BoS & Faculty Co-ordinator OBE)
4)	Dr. Daksh Bhatia	:	(Member BoS and Assistant Head-OBE)
5)	Dr. Vaishali M Patil	:	(Member BoS)
6)	Dr. Roma Ghai	:	(Member BoS)
7)	Mr. Himanshu Aggarwal	:	Faculty Co-ordinator OBE

Minutes of the Meeting:

1) Prof. Nagarajan welcomed everyone to the meeting and emphasised on the importance of OBE in technical education and the OBE practices to be followed religiously.
2) It was also reinstated that students must be made aware of OBE practices and the OBE information should be properly disseminated to all the students by the respective faculty members in their introductory class and refreshed on need basis.
3) All departmental heads submitted the evaluated CO- statements and Mappings with minor revisions (case based).
4) Faculty members were handed over with the CO- statements and mappings to incorporate the changes suggested by the BoS and to resubmit them at the earliest to the OBE coordinator and upload on the KIET Portal (NBA Module).

Signature:

Prof. (Dr.) K. Nagarajan	
Prof. (Dr.) NGR Rao	
Prof. (Dr.) Ashu Mittal	
Dr. Daksh Bhatia	
Dr. Vaishali M Patil	
Dr. Roma Ghai	
Mr. Himanshu Aggarwal	

KIET SCHOOL OF PHARMACY

KIET GROUP OF INSTITUTIONS

Minutes of the BoS meeting held on 23-03-2022 in Principal's office (KSOP)

Agenda: Approval of CO-PO statements and CO-PO mappings and Targets for B. Pharm Programme **Even semester (First and Second)** 2021-22.

Members Present

1)	Prof. (Dr.) K. Nagarajan	:	Principal- KSOP (Convener & Member BoS)
2)	Prof. (Dr.) NGR Rao	:	Additional Head- KSOP (Member BoS)
3)	Prof. (Dr.) Ashu Mittal	:	(Member BoS & Faculty Co-ordinator OBE)
4)	Dr. Daksh Bhatia	:	(Member BoS and Assistant Head-OBE)
5)	Dr. Vaishali M Patil	:	(Member BoS)
6)	Dr. Roma Ghai	:	(Member BoS)
7)	Mr. Himanshu Aggarwal	:	Faculty Co-ordinator OBE

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Signature:

Prof. (Dr.) K. Nagarajan	
Prof. (Dr.) NGR Rao	
Prof. (Dr.) Ashu Mittal	
Dr. Daksh Bhatia	
Dr. Vaishali M Patil	
Dr. Roma Ghai	
Mr. Himanshu Aggarwal	

KIET SCHOOL OF PHARMACY * GHAZIABAD *

KIET SCHOOL OF PHARMACY

KIET GROUP OF INSTITUTIONS

Minutes of the BoS meeting held on 11-02-2022 in Principal's office (KSOP)

Agenda: Approval of CO-PO statements and CO-PO mappings and Targets for B. Pharm Programme **Even semester (Pre-final and Final year)** 2021-22.

Members Present

1)	Prof. (Dr.) K. Nagarajan	:	Principal- KSOP (Convener & Member BoS)
2)	Prof. (Dr.) NGR Rao	:	Additional Head- KSOP (Member BoS)
3)	Prof. (Dr.) Ashu Mittal	:	(Member BoS & Faculty Co-ordinator OBE)
4)	Dr. Daksh Bhatia	:	(Member BoS and Assistant Head-OBE)
5)	Dr. Vaishali M Patil	:	(Member BoS)
6)	Dr. Roma Ghai	:	(Member BoS)
7)	Mr. Himanshu Aggarwal	:	Faculty Co-ordinator OBE

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Signature:

Prof. (Dr.) K. Nagarajan	
Prof. (Dr.) NGR Rao	
Prof. (Dr.) Ashu Mittal	
Dr. Daksh Bhatia	
Dr. Vaishali M Patil	
Dr. Roma Ghai	
Mr. Himanshu Aggarwal	

KIET School of Pharmacy
KIET Group of Institutions

OBE- The criterion for deciding the benchmarks (2021-22 Even)

1) New syllabus for B. Pharm program was implemented by PCI in the session 2017-18 and during this majority of the syllabus got shuffled and a rational mapping couldn't be done between the previous and new courses.
2) Based on the previous syllabus results the attainments were decided.
3) Due to Covid-19 outbreak, two sessions 2019-20 and 2020-21 were held online and either the exams were not conducted, or they were conducted in objective mode.
4) The sudden shift in the teaching methodology and the assessment methods the obtained results were erratic and were not a clear reflection of the students' learning.
5) It is way too complex to map the obtained results (Objective exam and online classes) with the previous benchmarks (Subjective exams and offline classes).
6) In order to reduce the complexity, the subject coordinators decided the benchmarks based on the previous patterns of results that were obtained with offline examination (subjective).
7) The obtained benchmarks have been discussed and approved by BoS, KSOP.

BoS KSOP	
Prof. (Dr.) K. Nagarajan	
Prof. (Dr.) NGR Rao	
Prof. (Dr.) Ashu Mittal	
Dr. Daksh Bhatia	
Dr. Vaishali M Patil	
Dr. Roma Ghai	

KIET SCHOOL OF PHARMACY * GHAZIABAD *

KSOP- BENCHMARKS 2021-22 EVEN SEMESTER (THEORY COURSES)

Year	Sem	Course Code	Course	CO- Coordinator	
I	2	BP201T	Human Anatomy and Physiology II	Ms. Priya Bansal	60%
		BP202T	Pharmaceutical Organic Chemistry I	Ms. Tanya Gupta	55%
		BP203T	Biochemistry	Dr.Garima	56%
		BP204T	Pathophysiology	Mr. Praveen Dixit	52%
		BP205T	Computer Applications in Pharmacy	Ms. Vidhu Saxena	60%
		BP206T	Environmental Sciences	Mr. Sanjeev Chauhan	60%
II	4	BP401T	Pharmaceutical Organic Chemistry III	Ms. Shipra Singhal	58%
		BP402T	Medicinal Chemistry I	Dr. Parul Grover	55%
		BP403T	Physical Pharmaceutics II	Ms. Sakshi Garg	55%
		BP404T	Pharmacology I	Dr. Abhishek Kumar	56%
		BP405T	Pharmacognosy I	Dr. Richa Goel	54%
III	6	BP601T	Medicinal Chemistry III	Dr. Abhay Bhardwaj	50%
		BP602T	Pharmacology III	Mr.Himanshu	55%
		BP603T	Herbal Drug Technology	Mr.Harsh	50%
		BP604T	Biopharmaceutics and Pharmacokinetics	Dr.Ashu	45 ~~50%~~
		BP605T	Pharmaceutical Biotechnology	Mr.DP Ghosh	52%
		BP606T	Quality Assurance	Dr.Alankar	45%
IV	8	BP801T	Biostatistics and Research Methodology	Mr. Pankaj Bhat	55%
		BP802T	Social and Preventive Pharmacy	Mr. Anuj Pathak	50%
		BP803ET	Pharma Marketing Management	Ms.Shikha	55%
		BP805ET	Pharmacovigilance	Dr.Vinay	55%
		BP806ET	Quality Control and Standardization of Herbal	Dr.Daksh	50%
		BP807ET	Computer Aided Drug	Dr.Vaishali	50%
		BP809ET	Cosmetic Science	Dr.Monika	52%
		BP810ET	Experimental Pharmacology	Ms.Priya	50%

KSOP- BENCHMARKS 2021-22 EVEN SEMESTER (PRACTICAL COURSES)

Year	Sem	Course Code	Course	CO- Coordinator	
I	2	BP207P	Human Anatomy and Physiology II- Practical	Mr. Praveen	~~80%~~ 70%
		BP208P	Pharmaceutical Organic Chemistry I- Practical	Ms. Shikha Kaushik	70%
		BP209P	Biochemistry- Practical	Dr.Garima	70%
		BP210P	Computer Applications in Pharmacy- Practical	Ms. Vidhu Saxena	70%
II	4	BP406P	Medicinal Chemistry I- Practical	Ms. Shipra Singhal	70%
		BP407P	Physical Pharmaceutics II- Practical	Dr. NGR Rao	70%
		BP408P	Pharmacology I- Practical	Dr Sukesh	70%
		BP409P	Pharmacognosy I- Practical	Dr. Richa	70%
III	6	BP607P	Medicinal Chemistry III- Practical	Dr. Abhay Bhardwaj	70%
		BP608P	Pharmacology III- Practical	Dr. Roma Ghai	70%
		BP609P	Herbal Drug Technology- Practical	Dr. Deepti	70%
		BP610P	Industrial Training	Mr.DP Ghosh	70%

KSOP Subject Aloocation, 2021-22 Even Semester 21.01.2022

S.N.	Faculty Name	Subject-1	Subject-2
1	Dr. K. Nagarajan	Principles of Drug Discovery PG	Biochemistry
2	Dr. N.G.RAGHAVENDRA RAO	Molecular Pharmaceutics PG	Physical Pharmaceutics II
3	Dr. Ashu Mittal	Advanced Biopharmaceutics & Pharmacokinetics PG	Biopharmaceutics and Pharmacokinetics
4	Sanjeev Chauhan	Biopharmaceutics and Pharmacokinetics	Environmental Sciences
5	Dr. Alankar Shrivastava	Quality Assurance	Pharmaceutical Validation QA
6	Anuj Pathak	Cosmetic and Cosmeceuticals PG	Social and Preventive Pharmacy
7	KIRAN SHARMA	Audits and Regulatory Compliance QA	
8	Debaprasad Ghosh	Pharmaceutical Biotechnology	
9	Monika Kaurav	Pharmaceutical Biotechnology	Cosmetic Science E
10	Dr. LAKSHMI	Computer Aided Drug Delivery System PG	Quality Assurance
11	Pankaj bhatt	Pharmaceutical Manufacturing Technology QA	
12	Harsh Rastogi	Herbal Drug Technology	Diploma Sub
13	Sakshi Garg	Physical Pharmaceutics II	Diploma Sub
14	Dr Vaishali M Patil	Computer Aided Drug E	
15	Dr Abhay Bhardwaj	Hazards and Safety Management QA	Medicinal Chemistry III
16	Dr. Parul Grover	Medicinal Chemistry I	
17	Surya Prakash	Pharmaceutical Organic Chemistry III	Biochemistry
18	GARIMA KAPOOR	Medicinal Chemistry III	Biochemistry
19	SHIPRA SINGHAL	Medicinal Chemistry I	Pharmaceutical Organic Chemistry III
20	Shikha Kaushik	Pharmaceutical Organic Chemistry I	Pharma Marketing Management E
21	Dr. Anjleena	Diploma Sub	
22	Tanya Gupta	Pharmaceutical Organic Chemistry I	Diploma Sub
23	Dr. Vijay Kumar	Advanced Pharmacology II PG	Pharmacovigilance E
24	Dr. Roma Ghai	Clinical Research and Pharmacovigilance PG	
25	PRAVEEN KUMAR DIXIT	Human Anatomy and Physiology II	Pathophysiology
26	Himanshu Aggarwal	Pathophysiology	Pharmacology III
27	Dr. Abhishek Kumar	Pharmacological and Toxicological Screening Methods-II PG	Pharmacology I
28	PRIYA BANSAL	Human Anatomy and Physiology II	Experimental Pharmacology E
29	Vidhu Saxena	Social and Preventive Pharmacy	Computer Applications in Pharmacy
30	Kanishk Luhach	Pharmacology I	Biomedical Waste Management
31	Dr. Sukesh Kumar Gupta	Pharmacology III	Diploma Sub
32	Dr. Daksh Bhatia	Quality Control and Standardization of Herbal E	Herbal Drug Technology
33	Dr Richa Goel	Pharmacognosy I	Diploma Sub
34	Dr. Deepti Kutiyar	Pharmacognosy I	

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- B. Pharm **Course Code-BP-201T**

Course Instructors- Mr. Praveen K Dixit

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discuss the anatomy and physiology of Nervous system.	Understand	Factual & Conceptual
CO2	Illustrate the anatomy and physiology of Digestive System and energetics (ATP, Creatinine Phosphate)	Apply	Factual & Conceptual
CO3	Outline the structure and functions of Respiratory System and Urinary System	Remember	Factual & Conceptual
CO4	Illustrate the anatomical and physiological aspects of Endocrine System.	Apply	Factual & Conceptual
CO5	Outline the structural and functional aspects of Reproductive System and Genetics.	Remember	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	1	2	1	2
CO2	3	1	2	1	-	1	1	1	2	1	2
CO3	3	1	2	1	-	1	1	1	2	1	2
CO4	3	1	2	1	-	1	1	1	2	1	2
CO5	3	1	2	1	-	1	1	1	2	1	2
PO Target	3	1	2	1	-	1	1	1	2	1	2

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

2021-22 Even Semester

Program- B. Pharm. **Semester-2**

Course- Pharmaceutical Organic Chemistry I **Course Code-BP202T**

Course Instructors-Tanya Gupta

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand about Classification, nomenclature and isomerism of Organic Compounds.	Understand	Factual & Conceptual
CO2	Understand about definition, types, classification, principles/mechanisms, applications, General methods of preparation and reactions of Alkanes*, Alkenes* and Conjugated dienes.	Understand	Factual & Conceptual
CO3	Illustrate the definition, types, classification, principles/mechanisms, applications, General methods of preparation and reactions of Alkyl halides and Alcohols.	Apply	Factual & Conceptual
CO4	Illustrate the definition, types, classification, principles/mechanisms, applications, General methods of preparation and reactions of carbonyl Compounds.	Apply	Factual & Conceptual
CO5	Describe the definition, types, classification, principles/mechanisms, applications, General methods of preparation and reactions of Carboxylic acids and Amines.	Understand	Factual & Conceptual

Mapping of COs with POs

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

Signature of CO Coordinator Tanya Gupta

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Biochemistry **Course Code-BP203T**

Course Instructors- Dr. K. Nagarajan

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	To understand and identify the concept of Biomolecules and Bioenergetics	Remember	Factual & Conceptual
CO2	The students shall learn carbohydrate metabolism and biological oxidation and apply the learned knowledge in understanding diseases	Apply	Factual & Conceptual
CO3	To understand and analyze the concepts lipid and amino acids metabolism and their role in various diseases.	Understand	Factual & Conceptual
CO4	To illustrate the concept of nucleic acid metabolism and transfer of genetic information.	Analyze	Factual & Conceptual
CO5	To describe the classification and types of enzymes and their role as diagnostic and therapeutic applications.	Remember	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	3	2	2	1	1	1	1	1	2	2
CO2	3	2	2	1	1	1	1	1	2	1	1
CO3	3	3	2	1	1	1	1	1	2	1	1
CO4	3	3	3	2	2	2	1	1	3	2	2
CO5	1	1	1	1	1	1	1	1	1	1	1
PO Target	**2.60**	**2.40**	**2**	**1.40**	**1.20**	**1.20**	**1**	**1**	**1.80**	**1.40**	**1.40**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Pathophysiology **Course Code-BP204T**

Course Instructors- Dr. Praveen/ Mr. Himanshu

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Explain the basic mechanisms involved in the process of cell injury and inflammation	Create	Factual &Conceptual
CO2	Summarize the pathological mechanisms involved in the development of cardiovascular, renal and respiratory systems.	Understand	Factual &Conceptual
CO3	Describe the mechanisms of development of diseases associated with blood, endocrine, nervous and gastrointestinal system	Understand	Factual &Conceptual
CO4	Explain the development and progression of inflammatory diseases along with cancer.	Analyze	Factual &Conceptual
CO5	Summarize the etiology and pathogenesis of infectious and sexually transmitted diseases.	Understand	Factual &Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	2	1	-	2	1	1	3	-	2
CO2	3	1	2	1	-	2	1	1	3	-	2
CO3	3	1	2	1	-	2	1	1	3	-	2
CO4	3	1	2	1	-	2	1	1	3	1	2
CO5	3	1	2	1	-	2	1	1	3	1	2
PO Target	**3**	**1**	**2**	**1**	-	**2**	**1**	**1**	**3**	**1**	**2**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester-2**

Course- Computer Applications in Pharmacy **Course Code-BP205T**

Course Instructors- Ms. Vidhu Saxena

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	To understand the concept of number system and information systems.	Understand	Factual & Conceptual
CO2	To summarize the about various web technologies and databases.	Understand	Factual & Conceptual
CO3	To classify and apply the concepts of the various types of application of computers in pharmacy.	Apply	Factual & Conceptual
CO4	To assess the objective, concept and impact of Bioinformatics.	Evaluate	Factual & Conceptual
CO5	To understand and formulate application of computers in data analysis in Preclinical development.	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	2	3
PO Target	**2.60**	**2.40**	**2**	**3**	**1.20**	**2.40**	**2**	**1.60**	**2.60**	**2.40**	**3**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester-2**

Course- Computer Applications in Pharmacy **Course Code-BP205T**

Course Instructors- Ms. Vidhu Saxena

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	To understand the concept of number system and information systems.	Understand	Factual & Conceptual
CO2	To summarize the about various web technologies and databases.	Understand	Factual & Conceptual
CO3	To classify and apply the concepts of the various types of application of computers in pharmacy.	Apply	Factual & Conceptual
CO4	To assess the objective, concept and impact of Bioinformatics.	Evaluate	Factual & Conceptual
CO5	To understand and formulate application of computers in data analysis in Preclinical development.	Understand	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	2	3
PO Target	**2.60**	**2.40**	**2**	**3**	**1.20**	**2.40**	**2**	**1.60**	**2.60**	**2.40**	**3**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Environmental Sciences **Course Code-BP206T**

Course Instructors-Mr. Sanjeev Chauhan

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Determine the concept of multidisciplinary nature of environmental studies and classification of natural resources and its conservation.	Apply	Factual & Conceptual
CO2	Determine the concept of ecosystem and its structural and functional components with its classification.	Apply	Factual & Conceptual
CO3	Illustrate the concept of environmental pollution with its types, sources, impacts on man and its environment and mitigation measures.	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	-	2	1	-	3	2	1	1	3	3	3
CO2	-	2	1	-	2	1	1	1	2	3	3
CO3	-	3	3	-	3	3	1	1	3	3	3
PO Target	-	2.33	1.67	-	2.67	2	1	1	2.67	3	3

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Human Anatomy and Physiology II– Practical **Course Code-BP207P**

Course Instructors- Ms. Priya Bansal

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discuss the anatomy and physiology of CNS, Digestive system, Respiratory system, urinary system, endocrine system and reproductive system using models and charts.	Understand	Conceptual & Procedural
CO2	Illustrate the practical aspects related to reflex activity, body temperature recording, lung capacities, BMI and their importance.	Analyze	Conceptual & Procedural
CO3	Outline the different mechanisms of responses related to sense organs and nervous system.	Remember	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	3	2	1	1	1	1	1	1	2
CO2	3	1	3	2	1	1	1	1	1	1	2
CO3	3	1	3	2	1	1	1	1	1	1	2
PO Target	**3**	**1**	**3**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**2**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Pharmaceutical Organic Chemistry I– Practical **Course Code-BP208P**

Course Instructors- Ms. Shipra

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Outline the Preliminary test for organic compounds.	Remember	Conceptual & Procedural
CO2	Analyze the Detection of elements.	Analyze	Conceptual & Procedural
CO3	Experiment the Solubility test and functional group test.	Apply	Conceptual & Procedural
CO4	Identify the Melting point/Boiling point of organic compounds.	Remember	Conceptual & Procedural
CO5	Demonstrate the Preparation and Identification of the unknown compound.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	2	3	3	3	2	2	2	3	3	2	2
CO2	3	2	3	3	2	3	3	3	3	1	3
CO3	3	2	3	3	3	2	3	3	3	3	3
CO4	3	3	3	2	3	2	3	2	3	2	3
CO5	3	3	3	2	2	3	3	3	3	3	2
PO Target	**2.80**	**2.60**	**3**	**2.60**	**2.40**	**2.40**	**2.80**	**2.80**	**3**	**2.20**	**2.60**

Signature of CO Coordinator shipra

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Biochemistry – Practical **Course Code-BP209P**

Course Instructors- Dr. Garima Kapoor/Mr. Surya Prakash

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Analyze different carbohydrates, proteins and abnormal constituents of urine	Analyze	Conceptual & Procedural
CO2	Determination of blood creatinine, Salivary amylase, blood sugar and serum total cholesterol.	Apply	Conceptual & Procedural
CO3	Describe quantitative analysis of reducing sugars (DNSA method) and Proteins	Remember	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	3	2	2	1	1	1	1	1	2	2
CO3	3	2	2	1	1	1	1	1	2	1	1
CO4	3	3	2	1	1	1	1	1	2	1	1
PO Target	3	2.67	2	1.33	1	1	1	1	1.67	1.33	1.33

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 2**

Course- Computer Applications in Pharmacy– Practical **Course Code-BP210P**

Course Instructors- Ms. Vidhu Saxena

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Students should able to design a questionnaire using a word processing package	Create	Conceptual & Procedural
CO2	Students should able to create a HTML web page to show personal information.	Create	Conceptual & Procedural
CO3	Students should able to retrieve the information of a drug and its adverse effects using online tools.	Analyze	Conceptual & Procedural
CO4	Students should able to Create a database in MS Access to store the patient information with the required fields Using access	Create	Conceptual & Procedural
CO5	Students should able to Exporting Tables, Queries, Forms and Reports to XML pages and web pages.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	3	2	2	1	-	2	-	-	-	2
CO2	2	3	2	2	1	-		-	2	-	2
CO3	3	3	2	2	2	-	2	-	3	-	1
CO4	3	3	2	2	2	-	2	-	3	-	1
CO5	3	3	2	2	2	-	2	-	3	-	1
PO Target	**2.80**	**3**	**2**	**2**	**1.60**	**-**	**2**	**-**	**2.75**	**-**	**1.40**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 EVEN Semester

Program- B. Pharm. **Semester- 4**

Course- Pharmaceutical Organic Chemistry III **Course Code-BP401T**

Course Instructors- Ms. Shipra

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate about Stereo isomerism, Optical isomerism.	Analyze	Factual & Conceptual
CO2	Illustrate about Geometrical isomerism and Conformational isomerism.	Analyze	Factual & Conceptual
CO3	Outline the nomenclature, classification, synthesis and reaction of some heterocyclic compounds.	Remember	Factual & Conceptual
CO4	Summarize the Synthesis, reactions and medicinal uses of some heterocyclic compounds.	Understand	Factual & Conceptual
CO5	Outline some important synthetic reactions.	Remember	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	2	2	1	2	1	1	2	1	3
CO2	3	1	2	2	1	2	1	1	2	1	3
CO3	3	1	2	2	1	2	1	1	2	1	3
CO4	3	1	2	2	1	2	1	1	2	1	3
CO5	3	1	2	2	1	2	1	1	2	1	3
PO Target	**3**	**1**	**2**	**2**	**1**	**2**	**1**	**1**	**2**	**1**	**3**

Signature of CO Coordinator Shipra

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 4**

Course- Medicinal Chemistry I **Course Code-BP402T**

Course Instructors- Mr. Surya Prakash

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discuss basics of medicinal chemistry, physicochemical and stereochemical properties in relation to drug design and drug metabolism	Understand	Factual & Conceptual
CO2	Illustrate chemistry of drugs acting on ANS such as sympathomimetics and adrenergic drugs.	Analyze	Factual & Conceptual
CO3	Outline chemistry of parasympathomimetics, cholinesterase inhibitors and cholinergic blocking agents.	Remember	Factual & Conceptual
CO4	Illustrate chemistry of drugs acting on CNS such as sedative, hypnotics, antipsychotics and anticonvulsants.	Analyze	Factual & Conceptual
CO5	Outline the chemistry of drugs acting on CNS such as General anesthetics, narcotic & non-narcotic analgesics and anti-inflammatory agents.	Remember	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	1	1	-	1	1	1	2	1	2
CO2	3	1	1	1	-	1	1	1	2	1	2
CO3	3	1	1	1	-	1	1	1	2	1	2
CO4	3	1	1	1	-	1	1	1	2	1	2
CO5	3	1	1	1	-	1	1	1	2	1	2
PO Target	**3**	**1**	**1**	**1**	**-**	**1**	**1**	**1**	**2**	**1**	**2**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 EVEN Semester

Program- B. Pharm. **Semester- 4**

Course- Physical Pharmaceutics II **Course Code-BP403T**

Course Instructors- Sakshi Garg

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand basic concepts of different dispersion systems, powders and fluids.	Understand	Factual & Conceptual
CO2	Characterize various types of dispersion systems based on its classification with respect to its properties.	Understand	Factual & Conceptual
CO3	Apply the methods for formulation of various coarse dispersion systems.	Apply	Factual & Conceptual
CO4	Interpret the properties of dispersions, rheological behaviour of fluids and evaluation of powders with their applications.	Understand	Factual & Conceptual
CO5	Apply the principles of kinetics in the stabilization of dosage forms and stability studies of various dispersion systems.	Apply	Factual & Conceptual
CO6	Apply the principles of deformation of solids.	Apply	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	2	1	-	-	1	1	1	1	3
CO2	3	1	3	2	-	-	1	1	1	1	3
CO3	3	1	3	2	-	-	1	1	1	1	3
CO4	3	2	3	3	-	-	1	1	1	1	3
CO5	3	2	3	2	-	-	1	2	2	1	3
CO6	3	1	2	2	-	-	1	1	1	1	3
PO Target	**3**	**1.33**	**2.67**	**2**	**-**	**-**	**1**	**1.17**	**1.17**	**1**	**3**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 4**

Course- Pharmacology I **Course Code-BP404T**

Course Instructors- Mr. Knaishk Luhach

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Summarize 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	Categorize and explain the pharmacology of drugs acting on neurohumoral transmission related disorders	Create	Factual & Conceptual
CO5	Analyze and explain the pharmacology of drugs acting on Psychopharmacological disorders	Analyze	Factual & Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	1	3
CO2	3	-	1	1	1	2	-	2	3	1	3
CO3	3	-	1	1	1	2	-	2	3	1	3
CO4	3	1	1	1	1	2	1	2	3	1	3
CO5	3	1	2	1	1	2	1	2	1	1	3
PO Target	**3**	**1**	**1.20**	**1**	**1**	**2**	**1**	**2**	**2.60**	**1**	**3**

Signature of CO Coordinator Kanishk

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 4**

Course- Pharmacognosy I **Course Code-BP405T**

Course Instructors- Dr. Deepti Katiyar

Tagging Cos with BLs & KCs

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

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	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**	**1**	**2**	**3**	-	-	-	-	-	-	**2**

Deepti

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 4**

Course- Medicinal Chemistry I – Practical **Course Code-BP406P**

Course Instructors- Ms. Shipra

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Illustrate the synthesis of some drugs or intermediates like benzimidazole, benzothiazole, benzocaine, phenytoin, phenothiazine, barbiturate etc.	Analyze	Conceptual & Procedural
CO2	Determine the assay of some drugs like aspirin, ibuprofen, chlorpromazine, phenobarbitone etc.	Apply	Conceptual & Procedural
CO3	Determine the partition coefficient of some drugs.	Apply	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	3	3	1	2	1	1	1	1	3
CO2	3	1	3	3	1	2	1	1	1	1	3
CO4	3	1	3	3	1	2	1	1	1	1	3
Target Level	**3**	**1**	**3**	**3**	**1**	**2**	**1**	**1**	**1**	**1**	**3**

Signature of CO Coordinator _____ shipra _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- 4**

Course- Physical Pharmaceutics II – Practical **Course Code-BP407P**

Course Instructors- Ms. Sakshi Garg

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Categ.y (KC)
After completion of the course, the student will be able to			
CO1	Assess particle size, particle size distribution and derived properties of powder.	Evaluate	Conceptual & Procedural
CO2	Determine the viscosity of viscous samples using different methods.	Apply	Conceptual & Procedural
CO3	Evaluate the prepared suspension and emulsion formulations.	Evaluate	Conceptual & Procedural
CO4	Measure the kinetics of chemical reactions with stability studies.	Evaluate	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	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	3	2	2	2	1	1	1	1	1	1	2
PO Target	**3**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**2**

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Odd Semester

Program- B. Pharm. **Semester- 4**

Course- Pharmacology 1 – Practical **Course Code-BP408P**

Course Instructors- Dr. Abhishek Kumar

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	To understand and articulate basics of Experimental Pharmacology	Understand	Conceptual & Procedural
CO2	To understand and learn common laboratory techniques of Pharmacology.	Understand	Conceptual & Procedural
CO3	To observe the effect of drugs on animals by simulated experiments	Understand	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	-	3	1	-	2	-	-	2	-	3
CO2	3	-	3	3	-	2	-	-	1	-	3
CO3	3	-	3	3	-	2	-	-	1	-	3
PO Target	**3**	-	**3**	**2.33**	-	**2**	-	-	**1.33**	-	**3**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22Even Semester

Program- B. Pharm. **Semester- 4**

Course- Pharmacognosy I – Practical **Course Code-BP409P**

Course Instructors- Dr. Richa

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 tools used in quantitative microscopy.	Apply	Conceptual & Procedural
CO2	Evaluate the crude drugs on the basis of WHO guidelines	Evaluate	Conceptual & Procedural
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters	Analyze	Conceptual & Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
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

Richa

Signature of CO Coordinator

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Medicinal Chemistry-III **Course Code- BP601T**

Course Instructors- Dr. Garima Kapoor

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (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	Factual, 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	Factual, Conceptual
CO3	Analyze the various aspects of chemotherapy of anti-tubercular agents, urinary tract anti-infective agents and Antiviral agents.	Analyze	Factual, Conceptual
CO4	Illustrate the core principles of Chemotherapy of antifungal agents, Anti-protozoal Agents, Sulphonamides and Sulfones, Folate reductase inhibitors and Anthelmintics.	Apply	Factual, Conceptual
CO5	Describe thoroughly the idea of Drug Design, and Combinatorial Chemistry.	Understand	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	1	1	1	1	1	1	1	1	1	1	1
CO2	1	1	2	2	2	2	2	2	2	1	1
CO3	1	1	2	2	2	2	2	2	2	1	1
CO4	1	1	1	1	2	2	2	2	2	1	1
CO5	1	1	1	2	1	1	1	2	2	1	1
PO Target	**1**	**1**	**1.40**	**1.60**	**1.60**	**1.60**	**1.60**	**1.80**	**1.80**	**1**	**1**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Pharmacology-III **Course Code- BP602T**

Course Instructors- Dr. Sukesh Kr. Gupta

Tagging Cos with BLs & KCs

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

Mapping of COs with POs

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

Signature of CO Coordinator Gupta

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Herbal Drug Technology **Course Code- BP603T**

Course Instructors- Dr. Daksh Bhatia

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Recall the fundamentals of traditional herbal raw materials from its cultivation to collection with the help of good agricultural practices.	Remember	Factual, Conceptual
CO2	Discuss the demand and need of nutraceuticals in current scenario with its application in the ailments of various diseases.	Understand	Factual, Conceptual
CO3	Formulate various herbal formulations with the study of their excipients and possible herbal drug and food interactions.	Create	Conceptual, Procedural
CO4	Apply the regulatory guidelines for the assessment of herbal drugs and patenting.	Apply	Factual, Conceptual
CO5	Illustrate the scope and future prospects of the herbal drug industry.	Apply	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	2	-	1	3	-	3	-	3	2	3	3
CO2	2	-	-	1	-	2	-	3	3	3	3
CO3	2	-	1	-	-	2	-	3	2	3	3
CO4	3	1	1	3	-	2	1	3	3	3	3
CO5	2	-	-	2	-	3	-	3	3	3	3
PO Target	**2.20**	**1**	**1**	**2.25**	**-**	**2.40**	**1**	**3**	**2.60**	**3**	**3**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Biopharmaceutics and Pharmacokinetics **Course Code- BP604T**

Course Instructors- Dr. Ashu Mittal

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand major processes (absorption and disposition) and factors involved in drug absorption, disposition, theoretical and basic principles of compartment and non compartmental pharmacokinetic models, non linear pharmacokinetics for intravenous and oral route. Bioequivalence, bioavailability, BCS, IVIVC, Zero and first order drug absorption, disposition kinetics, methods to enhance drug bioavailability, in vitro drug dissolution method. Understanding significance and application of pharmacokinetic parameters, non-linear Pharmacokinetics.	Understand	Factual, Conceptual
CO2	Calculate pharmacokinetic parameters related to one compartmental pharmacokinetics, non compartmental pharmacokinetics, bioavailability and bioequivalence parameters, pharmacokinetic parameters related to multicompartment model., non linear pharmacokinetic parameters using Michaelis-menton method of estimating parameters, bioavailability parameters.	Apply	Factual, Conceptual
CO3	Derive various pharmacokinetic equations related to compartmental (Linear Pharmacokinetics), non compartmental and non linear pharmacokinetics.	Apply	Factual, Conceptual
CO4	Compare drug absorption processes, drug disposition processes, various pharmacokinetics compartment models, types of IVIVC, disposition kinetics, dissolution testing models, biotransformation processes.	Understand	Factual, Conceptual
CO5	Illustrate in vitro drug dissolution method, process and kinetics of protein binding of drug, bioequivalence and bioavailability of drug, BCS, IVIVC, bio-transportation and drug disposition processes, pharmacokinetic compartment models, non compartmental PK models, non linear and linear PK models, drug absorption kinetics,	Apply	Factual, Conceptual

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Biopharmaceutics and Pharmacokinetics **Course Code- BP604T**

Course Instructors- Dr. Ashu Mittal

Mapping of COs with POs

Course Code	PO 1	PO 2	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	2	-	1	-	1	-	-	2
CO3	3	1	1	1	-	1	-	1	-	-	1
CO4	3	1	3	1	-	1	-	1	-	-	1
CO5	3	1	1	1	-	1	1	1	-	1	1
PO Target	3	1	1.80	1.25	-	1	1	1	-	1	1.20

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Pharmaceutical Biotechnology **Course Code- BP605T**

Course Instructors- Monika Kaurav

Tagging Cos with BLs & KCs

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

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	2	2	1	1	2	1	1	3	3	2
CO2	3	2	2	1	1	2	1	1	3	3	2
CO3	3	2	2	1	1	2	1	1	3	3	2
CO4	3	2	2	1	1	2	1	1	3	3	2
CO5	3	2	2	1	1	2	1	1	3	3	2
PO Target	**3**	**2**	**2**	**1**	**1**	**2**	**1**	**1**	**3**	**3**	**2**

Signature of CO Coordinator Kaurav

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Quality Assurance **Course Code- BP606T**

Course Instructors- Dr. Alankar Shrivastava / Dr. Lakshmi

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (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
CO2	Acquire knowledge of organization and personnel, premises, equipments and raw materials related issues in pharmaceutical industry.	Apply	Factual, Conceptual
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	Remember	Factual, Conceptual
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
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

Lakshmi

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. Semester- VI

Course- Quality Assurance Course Code- BP606T

Course Instructors- Dr. Alankar Shrivastava

Mapping of COs with POs

Course Code	PO 1	PO 2	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	1	1
CO2	3	1	1	-	1	1	2	-	2	-	1
CO3	3	1	1	-	1	1	2	-	2	-	1
CO4	3	1	2	-	1	1	2	-	2	1	1
CO5	3	1	1	-	1	1	2	-	2	1	1
PO Target	3	1	1.25	-	1	1	2	-	2	1	1

Signature of CO Coordinator Ashrivastva

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Medicinal Chemistry-III **Course Code- BP607P**

Course Instructors- Dr. Abhay Bhardwaj

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand the synthesis different molecules	Understand	Conceptual, Procedural
CO2	Analyze the concept of assay of different drugs.	Analyze	Conceptual, Procedural
CO3	Apply and understand the aspects of Chem Draw and use different online softwares to study ADME activity.	Apply	Conceptual, Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	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	1	1	1
CO2	1	1	2	2	2	2	2	2	2	1	1
CO3	1	1	2	2	2	2	2	2	2	1	1
PO Target	**1**	**1**	**1.67**	**1.67**	**1.67**	**1.67**	**1.67**	**1.67**	**1.67**	**1**	**1**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Pharmacology-III **Course Code- BP608P**

Course Instructors- Kanishk Luhach

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Apply the methods of dose calculations for pharmacological experimentation.	Apply	Conceptual, Procedural
CO2	Apply the knowledge of experiment design and process via simulation experiments.	Apply	Conceptual, Procedural
CO3	Understand the methods of biochemical estimations and acute toxicity studies.	Understand	Conceptual, Procedural
CO4	Understand the methods of data analysis.	Understand	Conceptual, Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	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	1	1	1	1	3
PO Target	3	2	3	1	1	2	1.75	1	1	1	3

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Herbal Drug Technology **Course Code- BP609P**

Course Instructors- Harsh Rastogi

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Analyze the phytocomposition of crude drugs.	Analyze	Conceptual, Procedural
CO2	Evaluate the marketed Ayurvedic/Herbal formulations	Evaluate	Conceptual, Procedural
CO3	Apply their knowledge to develop the herbal formulations	Apply	Conceptual, Procedural
CO4	Analysis and evaluation of crude drugs	Analyze	Conceptual, Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	2	2	2	2	2	2	2	2	2	3
CO2	3	3	2	2	3	2	3	2	2	3	3
CO3	3	3	2	2	3	3	2	2	2	2	3
CO4	3	3	2	2	2	2	2	2	2	2	3
PO Target	**3**	**2.75**	**2**	**2**	**2.50**	**2.25**	**2.25**	**2**	**2**	**2.25**	**3**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VI**

Course- Report on Industrial Training **Course Code- BP610P**

Course Instructors- Ms. Vidhu Saxena

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (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.	Remember	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

Mapping of Cos with Pos

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	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	2

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Biostatistics & Research Methodology **Course Code- BP801T**

Course Instructors- Pankaj Bhatt

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 of biostatistics and general research methodology	Understand	Factual, Conceptual
CO2	Describe the appropriate statistical methods required for a particular research design	Understand	Factual, Conceptual
CO3	Adapt the appropriate research design and develop appropriate research hypothesis for a research project	Apply	Factual, Conceptual
CO4	Develop the ability to apply the methods while working on a research project work	Create	Conceptual, Procedural
CO5	Explain the various types of research design and create an appropriate framework for research studies	Understand	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
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**	**1.50**	**3**	**2.20**	**1.75**	**1**	**1**	**1**	**1.20**	**1**	**1**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Social and Preventive Pharmacy **Course Code- BP802T**

Course Instructors- Ms. Vidhu Saxena

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Define and describe the concept of health and disease.	Remember	Factual, Conceptual
CO2	Outline and explain the general principles of prevention and control of diseases.	Remember	Factual, Conceptual
CO3	Analyze and examine the objectives and functioning of various National health programs.	Analyze	Factual, Conceptual
CO4	Categorize and assess various national and social health programs along with the role of WHO.	Create	Factual, Conceptual
CO5	Discuss and generate the role of Community services in rural, urban and school health.	Understand	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	3	1	1	3	2	3	3	1	3
CO2	3	1	3	1	1	3	1	3	3	1	2
CO3	3	3	2	1	1	2	1	3	3	1	2
CO4	3	3	2	1	1	2	1	3	3	1	2
CO5	3	2	2	1	1	2	1	2	2	1	2
PO Target	**3**	**2**	**2.40**	**1**	**1**	**2.40**	**1.20**	**2.80**	**2.80**	**1**	**2.20**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Pharma Marketing Management **Course Code- BP803ET**

Course Instructors- Ms. Shikha Kaushik

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 of marketing and their application in pharmaceutical marketing.	Understand	Factual, Conceptual
CO2	Illustrate product management in pharmaceutical industry.	Apply	Factual, Conceptual
CO3	Analyse various promotional techniques for pharmaceutical products.	Analyze	Factual, Conceptual
CO4	Acquire knowledge about various pharmaceutical marketing channels.	Apply	Factual, Conceptual
CO5	Demonstrate the objectives and importance of price management in Pharmaceutical Industry.	Apply	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
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**	**2.60**	**2.80**

Signature of CO Coordinator Shikha

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Pharmacovigilance **Course Code- BP805ET**

Course Instructors- Dr. Vinay Kumar

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (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, Conceptual
CO2	Understand the drug and disease classification, various drug dictionaries, and coding in pharmacovigilance with examples	Understand	Factual, Conceptual
CO3	Application of pharmacovigilance methods with vaccine pharmacovigilance and communication in pharmacovigilance	Apply	Factual, Conceptual
CO4	Illustrate the generation of safety data in preclinical, clinical, and post-approval phases and also study ICH	Apply	Factual, Conceptual
CO5	Analysis of genetics related adverse drug reactions and safety evaluation of drugs in special population	Analyze	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11
CO1	3	1	1	3	-	-	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	-	2	1	2	2	1	3
CO5	3	-	-	1	-	2	1	2	2	1	3
PO Target	**3**	**1**	**1**	**2**	**-**	**1.67**	**1**	**2**	**2**	**1**	**3**

Signature of CO Coordinator Vkumar

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Quality Control and Standardization of Herbal **Course Code- BP806ET**

Course Instructors- Dr. Daksh Bhatia

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Apply WHO guidelines for quality control of herbal drugs.	Apply	Factual, Conceptual
CO2	Understand the application and significance of Quality assurance in herbal drug industry.	Understand	Factual, Conceptual
CO3	Understand the international guidelines for quality control of herbals and their research.	Understand	Factual, Conceptual
CO4	Apply the concepts of stability studies, drug profiling and new drug registration requirements.	Apply	Factual, Conceptual
CO5	Apply WHO guidelines for drug safety with use of various pharmacopoeia and applicability of markers.	Apply	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	2	2	-	-	2	3	-	3	2	2
CO2	3	2	2	-	-	2	3	-	3	2	2
CO3	2	2	-	-	1	-	3	2	2	2	3
CO4	3	2	2	-	-	-	3	-	2	2	2
CO5	3	-	3	-	-	-	3	-	2	2	2
PO Target	**2.80**	**2**	**2.25**	**-**	**1**	**2**	**3**	**2**	**2.40**	**2**	**2.20**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Computer Aided Drug Design **Course Code- BP807ET**

Course Instructors- Dr. Vaishali M Patil

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 of CADD and rational approaches to drug design.	Understand	Factual, Conceptual
CO2	Illustrate QSAR, descriptors and various approaches	Apply	Factual, Conceptual
CO3	Understand and analyze virtual screening techniques and molecular docking	Understand	Factual, Conceptual
CO4	Acquire knowledge about role of bioinformatics and cheminformatics in pharmaceutical drug discovery	Apply	Factual, Conceptual
CO5	Demonstrate the objectives and importance of molecular mechanics and quantum mechanics in drug discovery.	Apply	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
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**	**2.60**	**2.80**

Signature of CO Coordinator V. Patil

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Cosmetic Science **Course Code- BP809ET**

Course Instructors- Monika Kaurav

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Understand Classification and applications of cosmetic product; different excipients used to manufacture cosmetic products; basic structures of skin, hair and problems associated with oral cavity.	Understand	Factual, Conceptual
CO2	Understand skin care products, antiperspirants and deodorants and hair care products.	Understand	Factual, Conceptual
CO3	Memorize role of herbs in cosmetics, analytical cosmetics.	Remember	Factual, Conceptual
CO4	Analyze the different type of cosmetics.	Analyze	Factual, Conceptual
CO5	Understand the cosmetic problems associated with Hair and scalp and skin.	Understand	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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	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**	**1**	**1.80**	**1.20**	**1.40**	**1.40**	**1.40**	**1**	**1.40**	**1**	**1**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Experimental Pharmacology **Course Code- BP810ET**

Course Instructors- Ms. Priya Bansal

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
After completion of the course, the student will be able to			
CO1	Discuss various guidelines (CPCSEA, OECD), techniques (blood collection) and application of various strains of animals.	Understand	Factual, Conceptual
CO2	Illustrate various screening models for estimation of CNS activity (analgesic, antipyretic, antidepressant, antiepileptic etc).	Apply	Conceptual, Procedural
CO3	Outline different preclinical screening models for estimation of Autonomic Nervous System activity (sympathomimetics, sympatholytic, parasympathomimetic, parasympatholytic etc).	Remember	Conceptual, Procedural
CO4	Outline different cardiovascular activity (antihypertensive, diuretics, anticoagulants, antidyslepidemic etc) with preclinical screening models.	Remember	Conceptual, Procedural
CO5	Outline various research methodology and bio statistics for designing and interpretation of a research study.	Remember	Conceptual, Procedural

Mapping of COs with POs

Course Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO1	3	1	1	-	-	1	2	1	2	1	2
CO2	3	1	2	3	-	1	2	1	2	1	2
CO3	3	1	2	3	-	1	2	1	2	1	2
CO4	3	1	2	3	-	1	2	1	2	1	2
CO5	3	1	2	3	-	1	2	1	2	1	2
PO Target	**3**	**1**	**1.80**	**3**	**-**	**1**	**2**	**1**	**2**	**1**	**2**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Project work (On Elective) **Course Code- BP814 PW**

Course Instructors- Mr. Debaprasad Ghosh

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	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 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	Factual, Conceptual
CO3	Analyze the implementation of available knowledge and technology to cater the needs under consideration.	Analyze	Factual, Conceptual
CO4	Evaluate the potential role of new findings and their conversion into suitable solutions for the current pharmaceutical challenges.	Evaluate	Factual, Conceptual
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

Course Code	PO 1	PO 2	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**	**1.40**	**2**	**2**	**-**	**1**	**1**	**-**	**1.40**	**-**	**2**

Signature of CO Coordinator _____

KIET Group of Institutions, Delhi-NCR, Ghaziabad

Session- 2021-22 Even Semester

Program- B. Pharm. **Semester- VIII**

Course- Report on Industrial Tour **Course Code- BP815P**

Course Instructors- Ms. Vidhu Saxena

Tagging Cos with BLs & KCs

CO No.	Statement of Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (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.	Analyze	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	Factual, Conceptual
CO4	Analyze the various approval procedures, rules and regulations required to be followed inside a pharmaceutical industry.	Analyze	Factual, Conceptual
CO5	Compare the differences and similarities between the institutional theoretical and practical based learnings with that of the industrial day to day activities.	Understand	Factual, Conceptual

Mapping of COs with POs

Course Code	PO 1	PO 2	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**	**2**	**1.60**	**2.33**	**1**	**1**	**1.50**	**1**	**1**	**2**	**2**

Signature of CO Coordinator _____