

KIET SCHOOL OF PHARMACY

Minutes of Meeting held on 25th August 2023 in KSOP Department

Agenda:

Granting approval on CO statements, CO-PO mappings and target attainments of the respective subjects of the B.Pharm and M.Pharm subjects for the session 2023-24 odd semester.

Time: 12:00 PM

Venue: Principal's confidential room

Chair: Dr. K. Nagarajan (Principal-KSOP)

BOS Members Present:

1. Dr. N.G. Raghavendra Rao

2. Dr. Roma Ghai

3. Dr. Parul Grover

4. Dr. Shardendu Kumar Mishra

5. Dr. Vinay Kumar

6. Dr. Daksh Bhatia

Topics Discussed

The BoS members reviewed and approved the CO statements and CO-PO mapping as per IQAC requirements for 2023-24 odd semester session.

The target benchmarks given by the respective subject teachers were also reviewed and approved for 2023-24 odd semester session.

The CO statements, CO-PO mapping and target benchmarks were handed over to OBE team for getting them uploaded on the KIET ERP portal by the respective CO-Coordinators.

Dr. K. Nagarajan
Principal, KSOP

Dr. Anil Anilawat
Dean-Academics

Dr. A. Garg
Director,
KIET Group of Institutions

27/09/2023
30 Sep 23



KSOP Subject Allocation- Odd Sem, 2023-24 13/10/23					
Yr	Subject	Sec-A	Class Coordinator	Sec-B	Class Coordinator
I-Yr	Human Anatomy and Physiology	Dr. Praveen K. Dixit	Dr. Praveen/ Ms. Pragati	Mr. Priya Bansal	Mr. Sanjeev Ms. Shikha
	Pharmacology I	Mr. Dheerendra Choudhary/ Dr. Ravi		Mr. Sanjeev Choudhary	
	Pharmaceutical Analysis I	Dr. Anshu Bhardwaj		Dr. Smriti Saha	
	Pharmaceutical Inorganic Chemistry	Ms. Pragati Gupta		Ms. Shikha Kaur	
	II. Biology	Dr. Richa Saha		Dr. Priyanka Sharma	
	Communication Skills	Dr. Praveen Sharma		Dr. Richa Agarwal	
II-Yr	II. Mathematics	Dr. Richa Saha	Mr. Ghosh/ Ms. Shipra	Mr. Balwan Singh	Dr. Praveen/ Ms. Shikha
	Pharmaceutical Engineering	Mr. Sanjeev Choudhary		Ms. Sakshi Garg	
	Physical Pharmaceutics I	Mr. Dheerendra Ghosh		Ms. Pooja Jain	
	Pharmaceutical Microbiology	Dr. Anshu Kataria		Mr. Surya Prakash	
	Pharmaceutical Organic Chemistry II	Ms. Shikha Singh		Dr. Praveen K. Dixit	
	Universal Human Values and Professional Ethics	Mr. Balwan Singh		Dr. Vinay, Dr. Praveen, Dr. Ashu, Ms. Shikha	
III-Yr	MINOR SPECIALIZATION (MRA)	Dr. Vinay, Dr. Praveen, Dr. Ashu, Ms. Shikha	Ms. Pragati/ Dr. Rama	Prof. (Dr.) Ashu Mittal	Dr. Monika/ Dr. Abhishek
	Industrial Pharmacy I	Ms. Surbhi Kamboj		Dr. Monika Kataria	
	Pharmaceutical Jurisprudence	Dr. Guram Kapoor		Dr. Abhishek Kumar	
	Pharmacology II	Prof. (Dr.) Ruma Ghai		Mr. Surya Prakash	
	Medicinal Chemistry II	Ms. Pragati Gupta		Prof. (Dr.) Daksh Rathi	
	Pharmacognosy and Phytochemistry	Dr. Richa Saha			
IV-Yr	Instrumental Methods of Analysis	Dr. Guram/Dr. K. Nagarajan	Dr. Shandendu/ Dr. Lakshmi	Ms. Shipra Singh/ Dr. Nagarajan	Ms. Vidhu/ Ms. Shipra
	New Drug Delivery System (NDDS)	Dr. Lakshmi		Prof. (Dr.) N. G. R. Rao	
	Industrial Pharmacy II	Mr. Anuj Pathak		Ms. Vidhu Saxena	
	Pharmacy Practice	Dr. Shandendu Kumar Mishra		Ms. Priya Bansal	
	Advances in Computer including AI and Corporate Quality Skills	Ms. Shreeta/ Ms. Vidhu		Ms. Surbhi/ Ms. Vidhu	
PG-QA	MAT PG-QA	Prof. (Dr.) K. Nagarajan		Dr. Smriti Saha	
	Quality Management System PG-QA	Dr. Smriti Saha			
	Quality Control and Quality Assurance PG-QA	Dr. Lakshmi			
	Product Development and Technology Transfer PG-QA	Ms. Surbhi Kamboj			
PG- Pharmaceutics	Drug Delivery System PG-Sciences	Prof. (Dr.) N. G. R. Rao		Prof. (Dr.) N. G. Rao	
	Modern Pharmaceutics PG-Sciences	Prof. (Dr.) Ashu Mittal			
	Regulatory Affairs PG-Sciences	Mr. Anuj Pathak			
	MAT PG-Sciences	Dr. Abhishek Bhardwaj			
PG- Pharmacology	Pharmacological and Toxicological Screening Methods I PG-Cology	Prof. (Dr.) Ruma Ghai		Dr. Vinay Kumar	
	Advanced Pharmacology-I PG-Cology	Dr. Vinay Kumar			
	MAT PG-Cology	Dr. Parul Gerver			
	Cellular and Molecular Pharmacology PG-Cology	Dr. Shandendu Kumar Mishra			
PG-III SEM	RESEARCH METHODOLOGY AND STATISTICS PG-III Sem	Dr. Vinay Kumar/ Dr. Ajay Dixit			
D-Pharm-I	Pharmacognosy - Theory D-Pharm-I	Dr. Deepthi Kataria		Dr. Deepthi/ Mr. Priya Ranjan	
	Social Pharmacy - Theory D-P-I	Mr. Priya Ranjan/ Himanshu/ Dr. Vinay			
	Pharmaceutics - Theory D-P-I	Ms. Riya Rastogi			
	Pharmaceutical Chemistry - Theory D-Pharm-I	Ms. Shikha Kaur			
	Human Anatomy & Physiology - Theory D-Pharm-I	Mr. Kapil Sachan			
D-Pharm-II	Pharmacy Law & Ethics D-P-II	Mr. Shubham Sharma		Mr. Shubham Sharma/ Mr. Kapil Sachan	
	Community Pharmacy & Management D-Pharm-II	Ms. Konika Rao			
	Environmental Education and Disaster Management D-P-II	Ms. Riya Rastogi			
	Biochemistry & Clinical Pathology D-Pharm-II	Ms. Shreeta Mishra			
	Pharmacotherapeutics D-Pharm-II	Mr. Kapil Sachan			
	Pharmacology D-P-II	Dr. Abhishek			
	Hospital & Clinical Pharmacy D-Pharm-II	Mr. Priya Ranjan/ Himanshu/ Mr. Balwan Singh			



KSOP	Semester	Name of Subject/ Course	Subject Code/ Course	Departmental Subject/ Course Coordinator
		B.PHARM (2023-24)		
1	1	Human Anatomy and Physiology- Theory	BP101T	Dr. Praveen Kumar
2	1	Pharmaceutical Analysis I – Theory	BP102T	Dr. Abhay Bhardwaj
3	1	Pharmaceutics I – Theory	BP103T	Mr Pankaj Bhatt
4	1	Pharmaceutical Inorganic Chemistry- Theory	BP104T	Ms.Shikha Kaushik
5	1	Communication Skills – Theory	BP105T	Dr Priyanka Sharma
6	1	Remedial Biology- Theory	BP106RBT	Ms. Sheena Mehta
7	1	Remedial Mathematics – Theory	BP106RMT	Dr Barkha Rohtagi
9	1	Human Anatomy and Physiology – Practical	BP107P	Ms. Priya Bansal
10	1	Pharmaceutical Analysis I – Practical	BP108P	Dr Neha Rana
11	1	Pharmaceutics I – Practical	BP109P	Mr Pankaj Bhatt
12	1	Pharmaceutical Inorganic Chemistry- Practical	BP110P	Ms Pragati Gupta
13	1	Communication Skills – Practical	BP111P	Dr Priyanka Sharma
14	1	Remedial Biology- Practical	BP112RBP	Ms. Sheena Mehta
15	3	Pharmaceutical Organic Chemistry II – Theory	BP301T	Ms. Shipra Singhal
16	3	Physical Pharmaceutics I – Theory	BP302T	Dr Kiran Sharma
17	3	Pharmaceutical Microbiology – Theory	BP303T	Dr Monika Kaurav
18	3	Pharmaceutical Engineering – Theory	BP304T	Mr Balwan Singh
20	3	Pharmaceutical Organic Chemistry II – Practical	BP305P	Mr. Surya Prakash
21	3	Physical Pharmaceutics I – Practical	BP306P	Ms Sakshi Garg
22	3	Pharmaceutical Microbiology- Practical	BP307P	Dr Monika Kaurav
23	3	Pharmaceutical Engineering – Practical	BP308P	Mr. Sanjeev Chauhan
24	3	Drug Regulatory Affairs	BP410VA	Dr Deepti Katiyar
25	3	Universal human values and professional ethics-theor	KVE301	Dr Grima Kapoor
26	5	Medicinal Chemistry II – Theory	BP501T	Ms Pragati Gupta
27	5	Industrial Pharmacy I – Theory	BP502T	Dr Ashu Mittal
28	5	Pharmacology II – Theory	BP503T	Dr. Abhishek Kumar
29	5	Pharmacognosy and Phytochemistry	BP504T	Dr Daksh Bhatia
30	5	Pharmaceutical Jurisprudence – Theory	BP505T	Mr Pankaj Bhatt
31	5	Industrial Pharmacy I- Practical	BP506P	Ms Surbhi Kamboj
32	5	Pharmacology II – Practical	BP507P	Dr Roma Ghai
33	5	Pharmacognosy and Phytochemistry II – Practical	BP508P	Dr Richa Goel
34	5	Report on Hospital Training-I	BP509P	Mr. Kapil Sachan
35	7	Instrumental Methods of Analysis – Theory	BP701T	Ms. Shipra Singhal
36	7	Industrial Pharmacy II – Theory	BP702T	Mr Anuj Pathak
37	7	Pharmacy Practice – Theory	BP703T	Dr Shardendu Kumar
38	7	Novel Drug Delivery System (NDDS) – Theory	BP704T	Dr. Lakshmi
39	7	Instrumental Methods of Analysis/ NDDS –	BP705P	Dr Garima Kapoor
43	7	Practice School	BP706PS	Mr. Debaprasad Ghosh

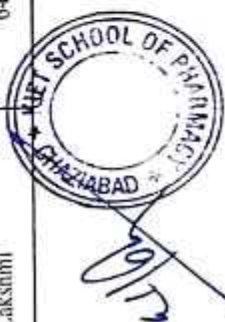


TARGET BENCHMARK B.PHARM ODD SEM 2023-24 (please put the average of the last three years as the theory external target benchmark. If there is any deviation, you need to justify the same to BoS)

S.NO.	SUBJECT CODE	SUBJECT NAME	SUBJECT TYPE	FACULTY NAME	Internal Target	External Target
1	BP101T	HUMAN ANATOMY AND PHYSIOLOGY-Theory	THEORY	Dr. Praveen Kr. Dixit	60	58
2	BP102T	PHARMACEUTICAL ANALYSIS I-Theory	THEORY	Dr. Abhay Bhardwaj	55	53
3	BP103T	PHARMACEUTICS I-Theory	THEORY	Mr. Debaprasad Ghosh	54	52
4	BP104T	PHARMACEUTICAL INORGANIC CHEMISTRY	THEORY	Ms. Shikha Kaushik	57	55
5	BP105T	COMMUNICATION SKILLS-Theory	THEORY	Dr. Priyanka	58	55
6	BP106RBT	REMEDIAL BIOLOGY -Theory	THEORY	Ms. Sheena Mehta	57	55
7	BP106RMT	REMEDIAL MATHEMATICS -Theory	THEORY	Dr. Richa Aggarwal/Dr. Barka	58	55
8	BP107P	HAP PRACTICAL	LAB	Ms. Priya Bansal	70	70
9	BP108P	P.ANALYSIS PRACTICAL	LAB	Dr. Neha Rana	70	70
10	BP109P	PHARMACEUTICS PRACTICAL	LAB	Mr. Pankaj Bhatt	70	70
11	BP110P	IPC PRACTICAL	LAB	Ms. Pragati Gupta	70	70
12	BP105T	COMMUNICATION SKILLS PRACTICAL	LAB	Dr. Priyanka	70	70
13	BP112RBP	REMEDIAL BIOLOGY PRACTICAL	LAB	Ms. Sheena Mehta	70	70
14	BP-301T	PHARMACEUTICAL ORGANIC CHEMISTRY-II	THEORY	Ms. Shipra Singhal	60	55
15	BP-302T	PHYSICAL PHARMACEUTICS-I	THEORY	Dr. Kiran Sharma	63	61
16	BP-303T	PHARMACEUTICAL MICROBIOLOGY	THEORY	Dr. Monika Kaurav	58	56



17	BP-304T	PHARMACEUTICAL ENGINEERING	THEORY	Mr. Balwan Singh	58	55
18	BP-305P	PHARMACEUTICAL ORGANIC CHEMISTRY-II PRAC	LAB	Mr. Surya Prakash	70	70
19	BP-306P	PHYSICAL PHARMACEUTICS-I PRACTICAL	LAB	Ms. Sakshi Garg	70	70
20	BP-307P	PHARMACEUTICAL MICROBIOLOGY PRACTICAL	LAB	Dr. Monika Kaurav	70	70
21	BP-308P	PHARMACEUTICAL ENGINEERING PRACTICAL	LAB	Mr. Sanjeev Chauhan	70	70
22	KVE-301	UNIVERSAL HUMAN VALUES & PROFESSIONAL ETHICS	THEORY	Dr. Garima Kapoor	67	65
23	BP410VA	MINOR SPECIALIZATION (DRA)	VALUE ADDED COURSE	Dr. Deepika Katiyar	60	55
24	BP-301T	MEDICINAL CHEMISTRY-II	THEORY	Ms. Pragati Gupta	57	55
25	BP-502T	INDUSTRIAL PHARMACY-I	THEORY	Dr. Ashu Mittal	56	54
26	BP-503T	PHARMACOLOGY-II	THEORY	Dr. Abhishek Kumar	59	57
27	BP-504T	PHARMACOGNOSY-II	THEORY	Dr. Daksh Bhatia	60	55
28	BP-505T	PHARMACEUTICAL JURISPRUDENCE	THEORY	Mr. Pankaj Bhatt	57	55
29	BP-506P	INDUSTRIAL PHARMACY-I PRACTICAL	LAB	Ms. Surbhi Kamboj	70	70
30	BP-507P	PHARMACOLOGY-II PRACTICAL	LAB	Dr. Roma Ghai	70	70
31	BP-508P	PHARMACOGNOSY-II PRACTICAL	LAB	Dr. Richa Goel	70	70
32	BP-701T	INSTRUMENTAL METHODS OF ANALYSIS THEORY	THEORY	Dr. Vaishali Manikrao Patil	63	61
33	BP-702T	INDUSTRIAL PHARMACY II THEORY	THEORY	Mr. Anuj Pathak	61	59
34	BP-703T	PHARMACY PRACTICE THEORY	THEORY	Dr. Shardendu Kumar Mishra	55	53
35	BP-704T	NOVEL DRUG DELIVERY SYSTEM (NDDS) THEORY	THEORY	Dr. Lakshmi	64	62



36	BP-705P	INSTRUMENTAL METHODS OF ANALYSIS PRACTICAL	LAB	Dr. Garima Kapoor	70	70
37	..	Advances in Computer including AI and Corporate Quality Skills	VALUE ADDED COURSE	Ms. Vidhu Saxena	50	50
38	BP-706PS	PS- PHYTOMEDICINE	LAB	Mr. Debaprasad Ghosh	70	70
39	BP-706PS	PS- FORMULATION DEVELOPMENT	LAB			
40	BP-706PS	PS- DRUG DESIGN AND PROCESS CHEMISTRY	LAB			
41	BP-706PS	PS- QUALITY CONTROL AND QUALITY ASSURANCE	LAB			
42	BP-706PS	PS- ALTERNATIVE MEDICINE	LAB			
43	BP-706PS	PS- ARTIFICIAL INTELLIGENCE	LAB			


 PRINCIPAL
 KIET SCHOOL OF PHARMACY
 KANPUR

KIET Group of Institutions, Delhi – NCR, Ghaziabad

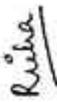
Department of Pharmacy

Program Name: Academic Session: 2023-24 Year: I Semester: I
Course Name: HAP-I Course Coordinator Name: Dr. Praveen K. Dixit
Course Code: BP101T

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply the basic structure of human body parts including cell, tissue and various types of cells signaling pathways.	1,7,8,9,11	Apply	Factual & Conceptual
CO2	Illustrate the structural and functional characteristics of bones and muscles of the human body.	1,7,8,9,11	Apply	Factual & Conceptual
CO3	Compare the composition and functions of blood and lymph.	1,7,8,9,11	Analyze	Factual & Conceptual
CO4	Illustrate the anatomical and physiological aspects of peripheral nervous system and sense organs.	1,7,8,9,11	Apply	Factual & Conceptual
CO5	Illustrate the structural and functional aspects of heart and its correlation with disorders in relation with ECG.	1,7,8,9,11	Apply	Factual & Conceptual

Faculty Members Teaching the Course	
1. Dr. Praveen K. Dixit	
2. Ms. Priya Bansal	



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Signature of Course Coordinator

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B. Pharm
Course Name: HAP-I
Course Code: BP101T
Academic Session: 2023-24
Year: I Semester: I
Course Coordinator Name: Dr. Praveen K Dixit/Ms. Priya

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
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	-	-	-

Faculty Members Teaching the Course		Signature
1. Dr. Praveen K. Dixit		
2. Ms. Priya Bansal		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are

Program Name: B. Pharm

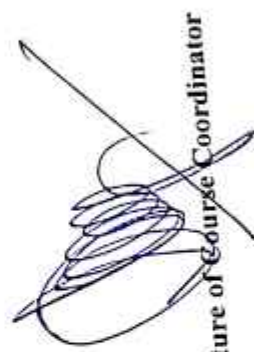
Course Name: Pharmaceutical Analysis-I

Course Outcomes

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Illustrate the basics and concepts of pharmaceutical analysis, its techniques and errors.	1, 3, 4, 6, 7, 9, 11	Apply	Factual and Conceptual
CO2	Determine the basics and concepts of acid base and non-aqueous titration and its application.	1, 3, 4, 6, 7, 9, 11	Apply	Factual and Conceptual
CO3	Demonstrate the basics and concepts of precipitation, complexometric, gravimetry and diazotization its application.	1, 3, 4, 6, 7, 9, 11	Apply	Factual and Conceptual
CO4	Illustrate the basics and concepts of redox titrations and its application.	1, 3, 4, 6, 7, 9, 11	Apply	Factual and Conceptual
CO5	Demonstrate the basics and concepts of electrochemical methods of analysis and its applications.			

Faculty Members Teaching the Course	Signature
1. Dr. Abhay Bhardwaj	
2. Dr. Neha Rana	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

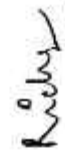
Program Name: B. Pharm
 Course Name: Pharmaceutical Analysis-I
 Academic Session: 2023-24
 Course Code: BP102T
 Year: I
 Semester: I
 Course Coordinator Name: Dr. Abhay Bhardwaj

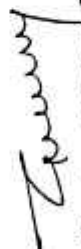
CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/APO		
	1	2	3	4	5	6	7	8	9	10	11		1	2
CO1	3		2	3		2	1		2		3	NA	NA	NA
CO2	3		2	2		2	1		2		3	NA	NA	NA
CO3	3		2	3		2	1		2		3	NA	NA	NA
CO4	3		2	3		1	1		2		2	NA	NA	NA
CO5	3		2	3		2	1		2		3	NA	NA	NA
PO Target	3		2	2.8		1.8	1		2		2.8	NA	NA	NA

Faculty Members Teaching the Course		Signature
3. Dr. Abhay Bhardwaj		
4. Dr. Neha Rana		


 Signature of Course Coordinator


 Assoc./ Asst. Head DOC


 Signature of Addl. HoD


 Signature of HoD

Program Name: B. Pharm

Course Name: Pharmaceutics-I

Academic Session: 2023-24

Course Code: BP103T

Course Outcomes

After completion of the course, the student will be able to

Statement of Course Outcome

CONo.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Illustrate the rationale and concept behind the pharmacy profession, definition and types of dosage forms, pharmacopoeias, prescription & posology.	PO-1,2,3,5,6,7,8,9,10,11	Analyze	Factual, Conceptual
CO2	Explore different types of basic calculations involved in the pharmaceuticals, pharmaceutical powders & liquid dosage forms.	PO-1,2,3,4,6,7,11	Apply	Factual, Conceptual
CO3	Outline monophasic liquid dosage forms, and biphasic liquid dosage forms like suspensions and emulsions.	PO-1,2,3,4,6,7,11	Remember	Factual, Conceptual
CO4	Identify the formulation requirements of suppositories and different pharmaceutical incompatibilities.	PO-1,2,3,4,6,7,11	Analyze	Factual, Conceptual
CO5	Explore semisolid dosage forms.	PO-1,2,3,4,6,7,11	Apply	Factual, Conceptual

CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	1	1		1	1	1	1	1	1	3	NA	NA
CO2	3	1	1	2		1	1	1			3	NA	NA
CO3	3	1	1	2		1	1	1			3	NA	NA
CO4	3	1	2	2		1	1	1			3	NA	NA
CO5	3	1	2	2		1	1	1			3	NA	NA
POTarget	3	1	1.40	2	1	1	1	1	1	1	3	NA	NA

Faculty Members Teaching the Course

Signature
1. Mr Pankaj Bhatt
2. Sanjeev Chauhan

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET SCHOOL OF PHARMACY

Program Name: B.Pharm

Academic Session: 2023-2024

Year: I Semester: I

Course Name: Inorganic Pharmaceutical Chemistry

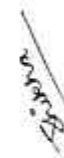
Course Code: BP104T

Course Coordinator Name: Ms. Shikha Kaushik

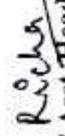
Course Outcomes

After completion of the course, the student will be able to		Relevant Pos/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Attain an understanding of the sources of impurities with their control and limit test of inorganic molecules in pharmaceuticals.	1,9,10,11	Apply	Conceptual, and Procedural
CO2	Illustrate buffers, major intra, and extracellular electrolytes, and combination therapy including ORS and dental products.	1,9,10,11	Apply	Conceptual, and Procedural
CO3	Illustrate the various inorganic gastrointestinal agents and antimicrobials.	1,9,10,11	Apply	Conceptual, and Procedural
CO4	Acquire knowledge of the expectorants, emetics, hematonic, and antidotes used in inorganic pharmaceuticals.	1,9,11	Apply	Conceptual, and Procedural
CO5	Illustrate the radiopharmaceuticals their handling and precautions.	1,2,9,10,11	Apply	Conceptual, and Procedural

Faculty Members Teaching the Course		Signature
1. Ms. Shikha Kaushik		
2. Ms. Pragati Gupta		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm

Academic Session: 2023-2024

Year: I Semester: I

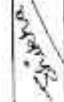
Course Name: Inorganic Pharmaceutical Chemistry

Course Code: BP104T

Course Coordinator Name: Ms. Shikha Kaushik

CG - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	1	-	-	-	-	-	-	-	2	3	1	-	-	-
CO2	1	-	-	-	-	-	-	-	2	2	1	-	-	-
CO3	1	-	-	-	-	-	-	-	2	1	1	-	-	-
CO4	1	-	-	-	-	-	-	-	2	-	1	-	-	-
CO5	1	2	-	-	-	-	-	-	2	3	1	-	-	-
PO Target	1	2	-	-	-	-	-	-	2	2.25	1	-	-	-

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. Shikha Kaushik		-	-
2. Ms. Pragati Gupta		-	-



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department of Pharmacy

Program Name: B. Pharm

Course Name: Communication Skills

Course Outcomes

Academic Session: 2023-24

Course Code: BP105T

Year: Ist

Semester: Ist

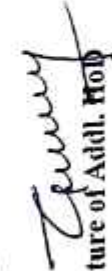
Course Coordinator Name: Dr. Priyanka Sharma

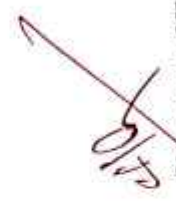
After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Figure out the communication strategies and principles along with the various perspectives at workplace.	8,11	Apply	Factual, Conceptual
CO2	Practice the verbal & Non-verbal communication skills including the cognition of various communication style matrix.	8,11	Apply	Factual, Conceptual
CO3	Express his/her self confidence with improved command over the dimensions of LSRW.	5,8,11	Understand	Factual, Conceptual
CO4	Exercise the key principles of effective presentation techniques	8,10,11	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.	5,8,11	Analyze	Factual, Conceptual

Faculty Members Teaching the Course	Signature
1. Dr. Priyanka Sharma	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of COs must be formulated considering a course objectives having moderate and difficult ones. This statement must not contain any phrase like and others.

Department of Pharmacy

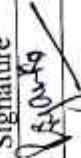
Program Name: B. Pharm
Course Name: Communication Skills

Academic Session: 2023-24
Course Code: BP105T

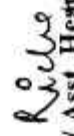
Semester: Ist
Course Coordinator Name: Dr. Priyanka Sharma

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	-	-	-	-	1	-	-	3	1	1	2	NA	NA
CO2	-	-	-	-	-	-	-	3	1	1	2	NA	NA
CO3	-	-	-	-	2	-	-	3	1	1	2	NA	NA
CO4	-	-	-	-	-	-	-	3	1	2	2	NA	NA
CO5	-	-	-	-	3	-	-	3	-	1	2	NA	NA
PO Target	-	-	-	-	2	-	-	3	1	1.2	2	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr. Priyanka Sharma		


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Asst. Head


Signature of HoD

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).

Department of Pharmacy

Academic Session: 2023-24 Year: I Semester: I
Course Code: BP106RBT Course Coordinator Name: Ms. Sheena Mehta

Program Name: B. Pharm
Course Name: Remedial Biology
Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Describe the basic components of anatomy & morphology of plants.	1,10,11	Understand	Factual and Conceptual
CO2	Explain the concept of Body fluids, circulatory system, digestive system and respiration system.	1,6,8,11	Understand	Factual and Conceptual
CO3	Restate the basic concepts of excretory system, human reproduction system, neural, chemical control and coordination	1,6,8,11	Understand	Factual and Conceptual
CO4	Summarize the basic concept of plant nutrition and nitrogen metabolism with the process of photosynthesis.	1,10,11	Understand	Conceptual and Procedural
CO5	Elaborate about plant cell and tissues with the mechanism of plant respiration, its growth and development.	1,10,11	Apply	Factual and Conceptual

Faculty Members Teaching the Course		Signature
1. Ms. Sheena Mehta		
2. Dr. Richa Goel		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a narrow structure having manipulative and analytical tasks. The manipulative tasks are Action & Knowledge and analytical tasks are Completion and Criteria.
- If there is no correlation then put a "0" (zero)

Program Name: B. Pharm
Course Name: Remedial Biology

Department of Pharmacy

Academic Session: 2023-24

Course Code: BP106RBT

Year: I Semester: I

Course Coordinator Name: Ms. Sheena Mehta

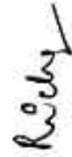
CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	1									2	3	NA	NA
CO2	3					1		1			2	NA	NA
CO3	3					1		1			2	NA	NA
CO4	1									3	3	NA	NA
CO5	1									2	3	NA	NA
PO Target	1.80					1		1		2.33	2.60	NA	NA

Faculty Members Teaching the Course		Signature
1. Ms. Sheena Mehta		
2. Dr. Richa Goel		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).
- 7 to 12 credits should have 6 to 10 number of COs.

Department of Pharmacy

Semester: I

Year: I

Academic Session: 2023-24

Course Code: BP106RMT

Program Name: B. Pharm

Course Name: Remedial Mathematics

Course Coordinator Name: Dr Barkha Rohtagi

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
CO1	Understand and apply the concepts of partial fractions, logarithms, real valued functions, limits and continuity in Chemical Kinetics & Pharmacokinetics.	1, 7, 9, 11 PO-1, 7, 9, 11	Understand	Factual, Conceptual
CO2	Understand & apply the concepts of determinants and Matrices in solving Pharmacokinetics equations.	1, 2, 3, 4 PO-1, 2, 3, 4, 6, 7, 9, 11	Understand	Factual, Conceptual
CO3	Understand & apply the concepts of derivatives of a function of one variable to find extrema at a point.	PO-1, 2, 3, 6, 7, 9, 11	Understand	Factual, Conceptual
CO4	Understand and apply the concepts of coordinate geometry integration in Pharmaceutical problems.	PO-1, 2, 3, 7, 11	Understand	Factual, Conceptual
CO5	Understand and apply the concepts of Differential equations and Laplace transformations in solving Chemical Kinetics & Pharmacokinetics equations.	PO-1, 2, 3, 6, 7, 11	Understand	Factual, Conceptual

Please Note (Reference: OBE Guidelines w.e.f. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	2						1		1		1	NA	NA
CO2	2	1	1	1		1	1		1		1	NA	NA
CO3	2	1	2			1	1		1		1	NA	NA
CO4	2	1	1				1				1	NA	NA
CO5	2	1	2			1	1				1	NA	NA
POTarget	2	1	1.50	1		1	1		1		1	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr Barkha Rohitagi		
2.		

[Signature]
Signature of Course Coordinator

[Signature]
Assoc./ Asst. Head DOC

[Signature]
Signature of Addl. HoD

[Signature]
Signature of HoD

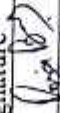
KIET Group of Institutions, Delhi – NCR Ghaziabad

Department of Pharmacy

Program Name: B. Pharm
 Course Name: HAP-I Practical
 Academic Session: 2023-24
 Year: III
 Semester: V
 Course Code: BP107P
 Course Coordinator Name: Ms. Priya Bansal

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the microscopical characteristics of different types of cells and tissues in human body under the light of microscopic techniques.	PO- 1,2,3,4,5,8,9,11	Apply	Conceptual & Procedural
CO2	Illustrate the concept for identification of various types of bones and joints under the background of their anatomical correlation.	PO- 1,2,3,4,5,8,9,11	Apply	Conceptual & Procedural
CO3	Assess the methods and techniques to measure the various components of blood.	PO- 1,2,3,4,5,8,9,11	Evaluate	Conceptual & Procedural

Faculty Members Teaching the Course		Signature
1. Ms. Priya Bansal		
2. Mr. Praveen Dixit		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Year: I Semester: I
Course Coordinator Name: Ms. Priya Bansal

Academic Session: 2023-24
Course Code: BP107P

Program Name: B.Pharm
Course Name: HAP-I Practical

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	1	1	2	1	-	-	1	2	-	2	NA	NA	NA
CO2	3	1	1	2	1	-	-	1	2	-	2	NA	NA	NA
CO3	3	1	1	2	1	-	-	1	2	-	2	NA	NA	NA
PO Target	3	1	1	2	1	-	-	1	2	-	2	NA	NA	NA

Faculty Members Teaching the Course		Signature	Faculty Members Teaching the Course	Signature
1. Ms. Priya Bansal				
2. Dr. Praveen K. Dixit				

Signature of Course Coordinator

Assoc./ Assf. Head DOC

Signature of Addl. HoD

Signature of HoD

- Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)
- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 4 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
 - The Project having 7 to 12 credits should have 6 to 10 number of COs.
 - The Project having 7 to 12 credits should have 6 to 10 number of COs.

Department of Pharmacy

Program Name: B. Pharm
Course Name: Pharmaceutical Analysis Practical
Course Outcomes

Year: I

Semester: I

Academic Session: 2023-24

Course Code: BP108P

Course Coordinator Name: Dr. Neha Rana

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Demonstrate various glassware used in pharmaceutical analysis.	1,3,4,6,7,9,11	Apply	Conceptual and Procedural
CO2	Analyze the various chemical compounds used in pharmaceutical analysis.	1,3,4,6,7,9,11	Analyze	Conceptual and Procedural
CO3	Examine various chemical compound by using pharmaceutical assay method.	1,3,4,6,7,9,11	Apply	Conceptual and Procedural

Faculty Members Teaching the Course		Signature
1.	Dr. Neha Rana	Neha
2.		

Neha

Signature of Course Coordinator

Rishi

Assoc./ Asst. Head DOC

Quany

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wcf. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

Program Name: B. Pharm
Course Name: Pharmaceutical Analysis Practical

Department of Pharmacy
Academic Session: 2023-24
Course Code: BP108P

Semester: I
Year: I
Course Coordinator Name: Dr. Neha Rana

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	-	2	3	-	2	1	-	2	-	3	NA	NA
CO2	3	-	2	3	-	2	1	-	2	-	3	NA	NA
CO3	3	-	2	3	-	2	1	-	2	-	3	NA	NA
PO Target	3	-	2	3	-	2	1	-	2	-	3	NA	NA

Faculty Members Teaching the Course	Signature
1. Dr. Neha Rana	Neha
2.	

Neha

Signature of Course Coordinator

hbm

Assoc./ Asst. Head DOC

Zany

Signature of Addl. HbD

Signature of HoD

Please Note (Reference: OBE Guidelines wcf, Session 2021 - 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).

Program Name: B. Pharm
Course Name: Pharmaceutics-1 Practical
Course Outcomes
Academic Session: 2023-24
Year: I
Semester: I
Course Coordinator Name: Mr Pankaj

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
CO1	Exercise the preparation and dispensing of monophasic liquid dosage forms such as syrups, elixirs, linctus, solutions, gargles and mouthwashes.	PO-1,3,5,6,7,8,9,11	Apply	Conceptual, Procedural
CO2	Exercise the preparation and dispensing of biphasic liquid dosage forms such as suspensions and emulsions.	PO-1,3,5,6,7,8,9,11	Apply	Conceptual, Procedural
CO3	Exercise the preparation and dispensing of different types of powders and granules.	PO-1,3,5,6,7,8,9,11	Apply	Conceptual, Procedural
CO4	Exercise the preparation and dispensing of semisolid dosage forms including ointments and creams.	PO-1,3,5,6,7,8,9,11	Apply	Conceptual, Procedural
CO5	Exercise the preparation and dispensing of suppositories.	PO-1,3,5,6,7,8,9,11	Apply	Conceptual, Procedural

Faculty Members Teaching the Course	
1. Mr Pankaj	Signature
2. Mr Debaprasad Ghosh	Signature

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines w.e.f. Session 2021 – 22)

The theory course/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs.

7 to 12 credits should have 6 to 10 number of COs. There is no correlation between the number of COs and the number of credits.

CO-PO Matrix

CO No.	Programme Outcome (PO)										PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3		2		2	2	2	1	3		3	NA	NA
CO2	3		2		2	2	2	1	3		3	NA	NA
CO3	3		2		2	2	2	1	3		3	NA	NA
CO4	3		2		2	2	2	1	3		3	NA	NA
CO5	3		2		2	2	2	1	3		3	NA	NA
PO Target	3		2		2	2	2	1	3		3	NA	NA

Faculty Members Teaching the Course		Signature
3. Mr Pankaj		<i>Pankaj</i>
4. Mr Debaprasad Ghosh		<i>DP</i>

Pankaj

Signature of Course Coordinator

Debaprasad

Assoc./ Asst. Head DOC

Debaprasad

Signature of Addl. HoD

Debaprasad

Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm

Academic Session: 2023-24 Year: 1st Semester: 1st

Course Name: Pharmaceutical Inorganic Chemistry Practical Course Code: BP110P Course Coordinator Name: Ms. Pragati Gupta

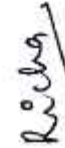
Course Outcomes

CO No.	Statement of Course Outcome	Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the sources of impurities with their control and limit test of inorganic molecules and pharmaceuticals.	1,2,3,4,5,7,8,9,10,11	Understand	Conceptual & Procedural
CO2	Explain the identification test and test for purity of inorganic molecules in pharmaceuticals.	1,2,3,4,5,7,8,9,10,11	Understand	Conceptual & Procedural
CO3	Elaborate on the preparation of inorganic pharmaceuticals and their assays.	1,2,3,4,5,7,8,9,10,11	Understand	Conceptual & Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Ms. Pragati Gupta		-	-
2. Ms. Shikha Kaushik		-	-



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

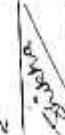
KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm **Academic Session:** 2023-24 **Year:** 1st **Semester:** 1st
Course Name: Pharmaceutical Inorganic Chemistry Practical **Course Code:** BP110P **Course Coordinator Name:** Ms. Pragati Gupta

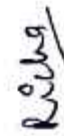
CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	1	3	1	1	-	1	1	3	3	3	NA	NA	NA
CO2	3	1	3	1	1	-	1	1	3	2	3	NA	NA	NA
CO3	3	1	3	1	1	-	1	1	3	1	3	NA	NA	NA
PO Target	3	1	3	1	1	-	1	1	3	2	3	NA	NA	NA

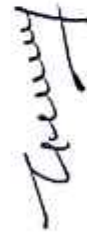
Faculty Members Teaching the Course		Faculty Members Teaching the Course												Signature
1. Ms. Pragati Gupta														-
2. Ms. Shikha Kaushik														-



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of KSOP

Program Name: B.Pharm

Academic Session: 2023-24

Year: 1 Semester: 1

Course Name: Communication Skills Practical

Course Code: BP111P

Course Coordinator Name: Dr Priyanka Sharma

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/PSOs/ APOs	Revised Bloom's Level (B L)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
CO1	Attain the cognizance to exhibit interest and participate in the synergy & team work with the help of good interpersonal skills.	PO8, PO11		
CO2	Apply the pronunciation etiquette to build the self-confidence with improved command over the mechanics of English language	PO8, PO11	Apply	Conceptual
CO3	Attain both formal effective verbal and non-verbal communication skills to make information more accessible to the audience.	PO5, PO8, PO11	Apply	Procedural
			Apply	Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr Priyanka Sharma			
2.			

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of KSOP

Program Name: B.Pharm
Course Name: Communication Skills Practical

Academic Session: 2023-24
Course Code: BP111P

Year: 1 Semester: 1
Course Coordinator Name: Dr Priyanka Sharma

CO-PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	-	-	-	-	-	-	-	3	-	-	1	NA	NA	NA
CO2	-	-	-	-	-	-	-	3	-	-	1	NA	NA	NA
CO3	-	-	-	-	3	-	-	3	-	-	1	NA	NA	NA
POTarget	-	-	-	-	3	-	-	3	-	-	1	NA	NA	NA

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr Priyanka Sharma		-	-
2.	-	-	-

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be framed accordingly.

Department of Pharmacy

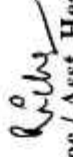
Program Name: B. Pharm
Course Name: Remedial Biology Practical
Academic Session: 2023-24
Course Code: BP112RBP
Year: I
Semester: I
Course Coordinator Name: Ms. Sheena Mehta

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Demonstrate microscope, section cutting, mounting and staining of slides.	1,4,9,11	Apply	Conceptual & Procedural
CO2	Explain various parts of plants.	1,8,9,10,11	Understand	Conceptual & Procedural
CO3	Examine the tissues pertinent to Stem, Root, Leaf, seed, fruit and flower and bones.	1,4,8,9,11	Apply	Conceptual & Procedural
CO4	Determine the blood group, blood pressure and tidal volume in human	1,4,8,9,11	Apply	Conceptual & Procedural

Faculty Members Teaching the Course	Signature
1. Ms. Sheena Mehta	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HOD


Signature of HoD

Program Name: B. Pharm
Course Name: Remedial Biology Practical
Department of Pharmacy
Academic Session: 2023-24
Course Code: BP112RBP
Year: I Semester: I
Course Coordinator Name: Ms. Sheena Mehta

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3			2					1		2	NA	NA
CO2	3							1	1	1	2	NA	NA
CO3	3			1				3	1		2	NA	NA
CO4	3			2				1	2		2	NA	NA
PO Target	3			1.67				1	1.25	1	2	NA	NA

Faculty Members Teaching the Course	Signature
2. Ms. Sheena Mehta	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- ❖ If there is no correlation, then put a "-" (dash).

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm

Academic Session: 2023-24

Year: II **Semester:** III

Course Name: Pharmaceutical Organic Chemistry-II

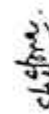
Course Code: BP301T

Course Coordinator Name: Shipra Singhal

Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSO/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the structure, properties, chemical reactions and uses of benzene and its derivatives.	PO1, PO3, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO2	Examine the structure, properties, chemical reactions and uses of phenols, aromatic amines and aromatic acids.	PO1, PO3, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO3	Determine the structure, chemical reactions and analytical constants and significance of oil and fats.	PO1, PO3, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO4	Illustrate the structure, synthesis, chemical reactions and medicinal uses of polynuclear hydrocarbons.	PO1, PO3, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO5	Illustrate the structure, properties, chemical reactions and uses of cycloalkanes.	PO1, PO3, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual

Faculty Members Teaching the Course		Faculty Members Teaching the Course	
Signature	Signature	Signature	Signature
Mr. Surya Prakash		—	—
Ms. Shipra Singhal		—	—

 **Signature of Course Coordinator**

 **Assoc./ Asst. Head DOC**

 **Signature of Addl. HoD**

 **Signature of HoD**

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ project having credits 7 to 12 credits should have 6 to 10 number of COs.

near/ industrial training having credits less than 3 should have 5 parts are Action & Knowledge and optional parts are

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm

Academic Session: 2023-24

Year: II Semester: III

Course Name: Pharmaceutical Organic Chemistry-II Course Code: BP301T Course Coordinator Name: Shipra Singhal

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	2	-	-	2	1	-	2	-	1	NA	NA	NA
CO2	3	-	2	-	-	2	1	-	2	-	1	NA	NA	NA
CO3	3	-	2	-	-	2	1	-	2	-	1	NA	NA	NA
CO4	3	-	2	-	-	2	1	-	2	-	1	NA	NA	NA
CO5	3	-	2	-	-	2	1	-	2	-	1	NA	NA	NA
PO Target	3	-	2	-	-	2	1	-	2	-	1	NA	NA	NA

Faculty Members Teaching the Course		Signature
1. Mr. Surya Prakash		<i>SP</i>
2. Ms. Shipra Singhal		<i>Shipra</i>

Shipra

Signature of Course Coordinator

Richa

Assoc./ Asst. Head DOC

Shipra

Signature of Addl. HoD

Shipra

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

Department of Pharmacy

Program Name: B. Pharm
Course Name: Physical Pharmaceutics-I
Course Outcomes

Academic Session: 2023-24
Course Code: BP302T

Year: IInd
Semester: IIIrd
Course Coordinator Name: Dr. Kiran Sharma

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Illustrate parameters related to solubility of drugs.	1,3,11	Apply	Factual, Conceptual
CO2	Analyze states of Matter, properties of matter and physicochemical properties of drug molecules.	1,3,11	Analyze	Factual, Conceptual
CO3	Determine about surface / interfacial phenomenon.	1,3,4,11	Apply	Factual, Conceptual
CO4	Outline complexation with protein binding.	1,3,4,10,11	Analyze	Factual, Conceptual
CO5	Illustrate about buffers and Isotonic solutions.	1,3,10,11	Apply	Factual, Conceptual

Faculty Members Teaching the Course	Signature
1. Dr. Kiran Sharma	
2. Ms. Sakshi Garg	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Department of Pharmacy

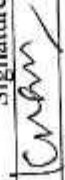
Program Name: B. Pharm
Course Name: Physical Pharmaceutics-I

Semester: IIIrd
Year: IInd
Course Coordinator Name: Dr. Kiran Sharma

Academic Session: 2023-24
Course Code: BP302T

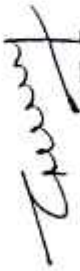
CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	1	2	1	1	1	1	1	1	1	2	NA	NA
CO2	3	1	2	1	1	1	1	1	1	1	2	NA	NA
CO3	3	1	2	2	1	1	1	1	1	1	2	NA	NA
CO4	3	1	2	2	1	1	1	1	1	2	2	NA	NA
CO5	3	1	2	1	1	1	1	1	1	2	2	NA	NA
PO Target	3	1	2	1.40	1	1	1	1	1	1.40	2	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr. Kiran Sharma		
2. Ms. Sakshi Garg		


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines w.r. Session 2021 – 22)

- ❖ The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- ❖ If there is no correlation, then put a "-" (dash).

Department of Pharmacy

Program Name: B. Pharm
Course Name: Pharmaceutical Microbiology
Course Outcomes

Academic Session: 2023-24
Course Code: BP303T

Semester: IIIrd
Year: IInd
Course Coordinator Name: Dr. Monika Kaurav

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate scope and application of pharmaceutical biotechnology	1,6	Apply	Factual, Conceptual
CO2	Explain various staining and sterilization techniques used in pharmaceutical biotechnology.	1,4,6	Understand	Factual, Conceptual
CO3	Outline evaluation methods of antiseptics, disinfectants, and the sterility testing as per different pharmacopoeias.	1,6,7,11	Remember	Factual, Conceptual
CO4	Explore the significance of clean area, methods and standardization microbial assay of biological products.	1,6,11	Apply	Factual, Conceptual
CO5	Analyse the microbial spoilage, preservation of pharmaceutical products and the process & applications of cell culture in pharmaceutical research.	3,6,7,11	Analyze	Factual, Conceptual

Faculty Members Teaching the Course	
1. Dr. Monika Kaurav	Signature
2. Mr. Debaprasad Ghosh	Signature

Signature

Signature of Course Coordinator

Richa

Assoc./ Asst. Head DOC

Signature

Signature of Addl. HoD

Signature

Signature of HoD

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24

Year: IInd Semester: IIIrd

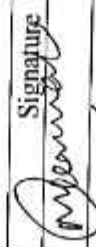
Course Name: Pharmaceutical Microbiology

Course Code: BP303T

Course Coordinator Name: Dr. Monika Kaurav

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	-	-	-	-	3	-	-	-	-	1	NA	NA
CO2	3	-	1	2	-	3	-	-	-	-	1	NA	NA
CO3	3	-	1	-	-	3	3	-	-	-	2	NA	NA
CO4	3	-	1	1	1	3	-	-	-	1	2	NA	NA
CO5	3	-	1	-	1	3	3	-	-	1	2	NA	NA
PO Target	3	-	1	1.50	1	3	3	-	-	1	1.60	NA	NA

Faculty Members Teaching the Course		Signature
3. Dr. Monika Kaurav		
4. Mr. Debaprasad Ghosh		



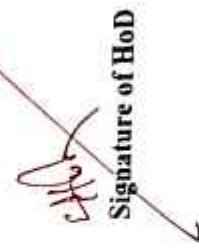
Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HOD



Signature of HoD

Please Note (Reference: OBE Guidelines wef Session 2021 - 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash)

Condition and Criteria

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department: KSOP

Program Name: B Pharm.

Course Name: Pharmaceutical Engineering-Theory
Course Outcomes

Academic Session: 2023-24

Course Code: BP304T

Year: 2nd

Semester: 3rd

Course Coordinator Name: Mr. Balwan Singh

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the basic concepts related to fluid flow and equipment's used in size reduction and size separation in pharmaceutical industry	1, 2, 3, 6, 10, 11	Understand	Factual, Conceptual, Procedural
CO2	Explain process of heat transfer and various equipment's used in evaporation and distillation.	1, 2, 3, 6, 10, 11	Analyze	Conceptual & Procedural
CO3	Examine various processes and equipment used in drying and mixing.	1, 2, 3, 4, 6, 10, 11	Apply	Conceptual & Procedural
CO4	Apply filtration and centrifugation for processing of pharmaceutical products.	1, 2, 3, 4, 6, 10, 11	Apply	Conceptual & Procedural
CO5	Explore selection of different material for pharmaceutical plant construction, corrosion and its prevention	1, 2, 3, 4, 6, 10, 11	Analyze	Conceptual & Procedural

Faculty Members Teaching the Course	
1. Mr. Sanjeev Kumar	Signature
2. Mr. Balwan Singh	Signature

Balwan Singh

Signature of Course Coordinator

Ravi

Assoc./ Asst. Head DOC

Balwan Singh

Signature of Addl. HoD

Balwan Singh

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department: KSOP

Program Name: B Pharm.

Course Name: Pharmaceutical Engineering-Theory

Academic Session: 2023-24

Course Code: BP304T

Year: 2nd

Semester: 3rd
Course Coordinator Name: Mr. Balwan Singh

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	1	1	-	-	1	-	-	-	1	1			
CO2	3	1	1	-	-	1	-	-	-	1	1			
CO3	3	1	1	1	-	1	-	-	-	1	1			
CO4	3	1	1	1	-	1	-	-	-	1	1			
CO5	3	1	1	1	-	1		-	-	1	1			
PO Target	3	1	1	1	-	1	-	-	-	1	1			

Faculty Members Teaching the Course		Signature
1. Mr. Sanjeev Kumar		<i>Sanjeev</i>
2. Mr. Balwan Singh		<i>Balwan</i>

Balwan
Signature of Course Coordinator

Rishi
Assoc./ Asst. Head DOC

Sanjeev
Signature of Addl. HoD

Balwan
Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department of Pharmacy

Program Name: B. Pharm
 Course Name: Pharmaceutical Organic Chemistry-II
 Course Code: BP305P
 Academic Session: 2023-24
 Year: II
 Semester: III
 Course Coordinator Name: Surya Prakash

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Demonstrate the purification of organic compounds.	1,2,3,4,9,10,11	3	Conceptual & Procedural
CO2	Illustrate the synthesis of some organic compounds like benzanilide, acetanilide, phenyl benzoate, 2,4,6-tribromo aniline etc.	1,2,3,4,9,10,11	2, 3	Conceptual & Procedural
CO3	Determine acid value, saponification value of oil and fats.	1,2,3,4,9,10,11	3,4	Conceptual & Procedural

Faculty Members Teaching the Course	
1. Surya Prakash	Signature
2.	

S.P.

Signature of Course Coordinator

R. Kumar
 Assoc./ Asst. Head DOC

S.P.
 Signature of Addl. HoD

S.P.
 Signature of HoD

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24

Year: II Semester: III

Course Name: Pharmaceutical Organic Chemistry-II Course Code: BP305P Course Coordinator Name: Surya Prakash

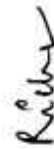
CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	1	3	3	-	-	-	-	1	1	3	NA	NA
CO2	3	1	3	3	-	-	-	-	1	1	3	NA	NA
CO3	3	1	3	3	-	-	-	-	1	1	3	NA	NA
PO Target	3	1	3	3	-	-	-	-	1	1	3	NA	NA

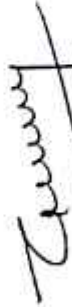
Faculty Members Teaching the Course		Signature
3. Surya Prakash		
4.		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Program Name: B. Pharm

Course Name: Physical Pharmaceutics-I

Department of Pharmacy

Academic Session: 2023-24

Course Code: BP306P

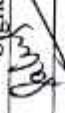
Year: IInd

Semester: IIIrd

Course Coordinator Name: Ms. Sakshi Garg

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	2	2	2	1	1	1	1	1	1	2	NA	NA
CO2	3	2	2	2	1	1	1	1	1	1	2	NA	NA
CO3	3	2	2	2	1	1	1	1	1	1	2	NA	NA
CO4	3	2	2	2	1	1	1	1	1	1	2	NA	NA
PO Target	3	2	2	2	1	1	1	1	1	1	2	NA	NA

Faculty Members Teaching the Course		Signature
1. Ms. Sakshi Garg		
2. Dr. Kiran Sharma		


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- ❖ If there is no correlation, then put a "-" (dash)

KLET Group of Institutions, Delhi – NCT of Ghaziabad

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24 Year: II Semester: III

Course Name: Pharmaceutical Microbiology Practical

Course Code: BP307P Course Coordinator Name: Dr Monika Kaurav

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply various techniques and instrument used in microbiology lab	PO-1,2,3,4,7,8,10,11	Apply	Conceptual, Procedural
CO2	Apply their theoretical knowledge for the preparation of different type of culture media	PO-1,2,3,4,7,8,10,11	Apply	Conceptual, Procedural
CO3	Identify the type of bacteria by different staining techniques.	PO-1,2,3,4,7,8,10,11	Remember	Conceptual, Procedural
CO4	Determine sterility testing of different pharmaceutical	PO-1,2,3,4,7,8,10,11	Apply	Conceptual, Procedural

Faculty Members Teaching the Course	
1. Dr Monika Kaurav	Signature
2. Mr Debaprasad Ghosh	

(Signature)

Signature of Course Coordinator

(Signature)
Assoc./ Asst. Head DOC

Signature of Addl. HoD

(Signature)
Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

Program Name: B. Pharm

Department of Pharmacy

Academic Session: 2023-24

Year: II

Semester: III

Course Name: Pharmaceutical Microbiology Practical

Course Code: BP307P

Course Coordinator Name: Dr Monika Kaurav

CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11		1	2
CO1	3	2	2	1			1	1		1	1	NA	NA	NA
CO2	3	2	3	2			1	1		1	1	NA	NA	NA
CO3	3	1	3	2			1	1		1	1	NA	NA	NA
CO4	3	2	3	2			1	1		1	1	NA	NA	NA
PO Target	3	1.75	2.75	1.75			1	1		1	1	NA	NA	NA

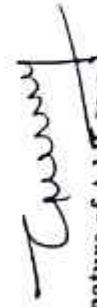
Faculty Members Teaching the Course		Signature
3. Dr Monika Kaurav		
4. Mr Debaprasad Ghosh		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put '0' (dash).

KIET Group of Institutions, Delhi – NCR Ghaziabad

Department of Pharmacy

Program Name: B. Pharm

Course Name: Pharm. Engineering Practical
Course Outcomes

Academic Session: 2023-24

Course Code: BP308P

Year: II

Semester: III

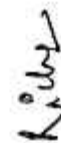
Course Coordinator Name: Mr. Sanjeev Kumar

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Demonstrate the process & factors affecting filtration and centrifugation.	1,2,3,6,9	Apply	Conceptual & Procedural
CO2	Demonstrate the process & principles of drying and evaporation	1,2,3,6,9	Apply	Conceptual & Procedural
CO3	Handle various pharmaceutical equipment's like FBD, fluid energy mill, Ball mill, Colloidal mill, planetary mixer & Freeze dryer.	1,2,3,6,9	Apply	Conceptual & Procedural
CO4	Demonstrate the process and principles of crystallization and distillation	1,2,3,6,9	Apply	Conceptual & Procedural

Faculty Members Teaching the Course	
1.	Mr. Sanjeev Kumar
2.	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

KIE Group of Institutions, Delhi - NCR, Ghaziabad

Program Name: B. Pharm

Course Name: Pharm. Engineering Practical

Department of Pharmacy

Academic Session: 2023-24

Course Code: BP308P

Year: II

Semester: III

Course Coordinator Name: Mr. Sanjeev Kumar

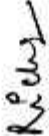
CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	2	1	1			2			1			NA	NA
CO2	2	1	1			2			1			NA	NA
CO3	2	1	1			2			1			NA	NA
CO4	1	1	1			2			1			NA	NA
PO Target	1.75	1	1			2			1			NA	NA

Faculty Members Teaching the Course		Signature
1. Mr. Sanjeev Kumar		
2.		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addt. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B. Pharm
 Course Name: Drug Regulatory Affairs
 Course Outcomes

Academic Session: 2023-24
 Course Code: BP410VA

Year: 2
 Semester: 3
 Course Coordinator Name: Dr. Deepthi Katiyar

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
CO1	Understand the basics of Regulatory Affairs including the roles and responsibilities of the various Regulatory Agencies	PO-1, 6, 8, 9	Understand	Conceptual
CO2	Demonstrate the dossier preparation and general guidance on the submissions in US-FDA and European Union	PO-1, 3, 4, 6, 8, 9	Apply	Conceptual/ Procedural
CO3	Describe the basic Regulatory Documentations like DMF, PDR, BMR, BPR, Batch Formula, Master Formula Record and so on	PO-1, 3, 6, 8, 9	Understand	Conceptual/ Procedural
CO4	Summarize the ICH Efficacy, safety and quality guidelines.	PO-1, 3, 6, 8	Understand	Conceptual/ Procedural
CO5	Elaborate about Patent, Trademark, Copyright, Industrial Designs and Geographical Indications, Indian Patent Scenario. IPR vs Regulatory Affairs	PO-1, 3, 4, 6, 8	Understand	Conceptual/ Procedural

Faculty Members Teaching the Course	Signature
1. Dr. Deepthi Katiyar	<i>Deepthi</i>
2. Dr. Vinay Kumar	<i>Vinay</i>

Deepthi

Ruha

Deepthi

Deepthi

Signature of HoD

Signature of Addl. HoD

Assoc./ Asst. Head DOC

Signature of Course Coordinator

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B. Pharm
Course Name: Drug Regulatory Affairs

Academic Session: 2023-24
Course Code: BP410VA

Semester: 3
Year: 2
Course Coordinator Name: Dr. Deepthi Katiyar

CO-PO/PSO/APO Matrix

CO No.	Programme Outcome(PO)												PSO/APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	-	-	-	1	-	1	1	-	3	NA	NA	NA
CO2	3	-	1	2	-	2	-	1	1	-	2	NA	NA	NA
CO3	3	-	1	-	-	2	-	1	1	-	2	NA	NA	NA
CO4	3	-	1	-	-	1	-	1	-	-	3	NA	NA	NA
CO5	3	-	1	1	-	1	-	1	-	-	3	NA	NA	NA
POTarget	3	-	1	1.5	-	1.4	-	1	1	-	2.6	NA	NA	NA

Faculty Members Teaching the Course	Signature
1. Dr. Deepthi Katiyar	
2. Dr. Vinay Kumar	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B. Pharma
Course Name: Universal Human Values and Professional Ethics- Theory Course Code: KVE301
Course Coordinator Name: Dr. Garima Kapoor
Course Outcomes

Academic Session: 2023-24 **Year:** 2nd **Semester:** 3rd

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Discuss the need, basic guidelines, content and process for Value Education under the light of 'universal human values'	PO5, PO6, PO7, PO9, PO11	Understand	Conceptual & procedural
CO2	Explore the concept of harmony in the human being (in Myself) being 'I' & 'body' as separate entity.	PO5, PO6, PO7, PO9, PO11	Apply	Conceptual & procedural
CO3	Ensure the concept 'harmony' in the family and society keeping family as part of undivided society.	PO5, PO6, PO7, PO9, PO11	Analyze	Conceptual & procedural
CO4	Appraise harmony in the nature and existence imbibing the role of individuals in maintaining the harmony within.	PO5, PO6, PO7, PO9, PO10, PO11	Evaluate	Conceptual & procedural
CO5	Interpret the holistic approach of harmony in relation with Professional Ethics.	PO5, PO6, PO7, PO9, PO10, PO11	Evaluate	Conceptual & procedural

Faculty Members Teaching the Course	Signature
1. Dr. Garima Kapoor	
2. Dr. Praveen Kumar Dixit	



Signature of Course Coordinator
Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having modules and outcomes.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B. Pharma

Academic Session: 2023-24

Year: 2nd

Semester: 3rd

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

Course Coordinator Name: Dr. Garima Kapoor

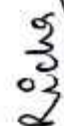
CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	-	-	-	-	3	1	3	-	1	-	2
CO2	-	-	-	-	3	1	3	-	1	-	2
CO3	-	-	-	-	3	2	3	-	2	-	2
CO4	-	-	-	-	3	2	3	-	3	3	2
CO5	-	-	-	-	3	3	3	-	3	3	2
PO Target	-	-	-	-	3	1.8	3	-	2	3	2

Faculty Members Teaching the Course	Signature
1. Dr. Garima Kapoor	
2. Dr. Praveen Kumar Dixit	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Year: 3rd Semester: 5
Course Coordinator Name: Ms. Pragati Gupta

Academic Session: 2023-24

Course Code: BP501T

Program Name: B.Pharm

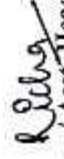
Course Name: Medicinal Chemistry-II

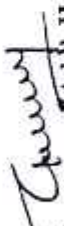
Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Demonstrate the classification, mechanism of action and SAR of Antihistaminic agents	PO-1,3,4,7,8,10	Apply	Factual & Conceptual
CO2	Illustrate the classification, mechanism of action and SAR of Antineoplastic agents	PO-1,3,4,7,8,10	Analyze	Factual & Conceptual
CO3	Demonstrate the classification, mechanism of action and SAR of various categories of Cardiovascular agents	PO-1,3,4,7,8,10	Apply	Factual & Conceptual
CO4	Explain the classification, mechanism of action and SAR of various categories of Endocrine system	PO-1,3,4,7,8,10	Analyze	Factual & Conceptual
CO5	Determine the classification, mechanism of action and SAR of Anti-diabetic agents and local Anesthetics	PO-1,3,4,7,8,10	Evaluate	Factual & Conceptual

Faculty Members Teaching the Course	Signature
1. Ms. Pragati Gupta	
2. Mr. Surya Prakash	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wcf. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs,
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24

Year: 3rd

Semester: 5th

Course Name: Medicinal Chemistry-II

Course Code: BP501T

Course Coordinator Name: Ms. Pragati Gupta

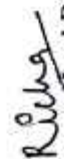
CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	2	1	-	-	1	1	-	1	-	NA	NA	NA
CO2	3	-	2	1	-	-	1	1	-	1	-	NA	NA	NA
CO3	3	-	2	1	-	-	1	1	-	1	-	NA	NA	NA
CO4	3	-	2	1	-	-	1	1	-	1	-	NA	NA	NA
CO5	3	-	2	1	-	-	1	1	-	1	-	NA	NA	NA
PO Target	3	-	2	1	-	-	1	1	-	1	-	NA	NA	NA

Faculty Members Teaching the Course		Signature
1. Ms. Pragati Gupta		
2. Mr. Surya Prakash		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department of Pharmacy

Program Name: B. Pharm
Course Name: Industrial Pharmacy-I
Course Outcomes

Academic Session: 2023-24
Course Code: BP502T

Year: IIIrd
Semester: Vth

Course Coordinator Name: Dr. Ashu Mittal

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
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	1,2,11	Understand	Factual, Conceptual
CO2	Apply preformulation and BCS considerations in the development of solid, liquid oral and parenteral dosage forms and its impact on stability of dosage forms	1,2,11	Apply	Factual, Conceptual
CO3	Formulate and prepare drug products such as tablets, coated tablet, liquid oral, capsules, pellets, parenteral, ophthalmic products, cosmetics, aerosols, ophthalmic preparation.	1,2,11	Create	Conceptual, Procedural
CO4	Assess the quality of prepared drug products such as tablets, coated tablet, liquid oral, capsules, pellets, parenteral, ophthalmic products, aerosols, and packaging material	1,2,11	Evaluate	Factual, Conceptual
CO5	Investigate various compression and processing problems related to manufacture of tablets, coated tablets, capsules	1,2,11	Apply	Factual, Conceptual

Faculty Members Teaching the Course	
1. Dr. Ashu Mittal	Signature
2. Ms. Surbhi	Surbhi

Surbhi

Rishi

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Department of Pharmacy

Program Name: B. Pharm

Course Name: Industrial Pharmacy-I

Academic Session: 2023-24

Course Code: BP502T

Year: IIIrd

Semester: Vth
Course Coordinator Name: Dr. Ashu Mittal

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	2	1	-	-	-	-	-	-	-	2	NA	NA
CO2	3	2	1	1	-	-	-	-	-	-	2	NA	NA
CO3	3	2	1	1	-	-	1	-	-	1	2	NA	NA
CO4	3	2	1	1	-	-	1	-	-	-	2	NA	NA
CO5	3	2	1	1	-	-	-	-	-	-	2	NA	NA
PO Target	3	2	1	1	-	-	1	-	-	1	2	NA	NA

Faculty Members Teaching the Course		Signature
3. Dr. Ashu Mittal		
4. Ms. Surbhi		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Program Name: B. Pharm
Course Name: Pharmacology-II
Course Outcomes

Department of Pharmacy

Academic Session: 2023-24 Year: III
Course Code: BP503T Course Coordinator Name: Dr. Abhishek Kumar

Semester: V

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Determine the pharmacology of drugs used for management of cardiovascular disorders	1,3,5,6,8,9,10,11	Understand	Factual & Conceptual
CO2	Illustrate the pharmacology of drugs acting on urinary system	1,3,5,6,8,9,10,11	Apply	Factual & Conceptual
CO3	Examine the pharmacological and physiological roles of autacoids and drugs acting on their receptors	1,3,5,6,8,9,10,11	Apply	Factual & Conceptual
CO4	Determine the pharmacology of drugs acting on endocrine system	1,3,5,6,8,9,10,11	Apply	Factual & Conceptual
CO5	Illustrate bioassay of specific drugs	1,3,5,6,8,9,10,11	Apply	Conceptual & Procedural

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	-	1	-	1	2	-	2	3	1	3	NA	NA
CO2	3	-	1	-	1	2	-	2	3	1	3	NA	NA
CO3	3	-	1	-	1	2	-	2	3	1	3	NA	NA
CO4	3	-	1	-	1	2	-	2	3	1	3	NA	NA
CO5	3	-	2	-	1	2	-	2	1	1	3	NA	NA
PO Target	3	-	1.20	-	1	2	-	2	2.6	1	3	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr. Roma Ghai		
2. Dr. Abhishek Kumar		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24 Year: I Semester: I

Course Name: Pharmacognosy & Phytochemistry - II Course Code: BP504T Course Coordinator Name: Dr. Daksh Bhatia

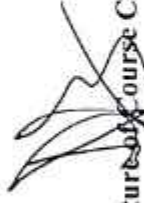
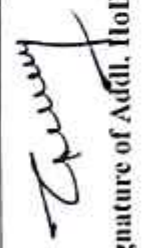
Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the concepts of metabolic pathways in higher plants.	CO1, CO4, CO11	Understand	Factual
CO2	Acquire the knowledge of the chemistry, source, therapeutic uses and commercial applications of specific crude drugs.	CO1, CO3, CO11	Understand	Factual
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters	CO1, CO3, CO4, CO11	Analyze	Procedural
CO4	Understand the industrial applications of the mentioned phytoconstituents	CO1, CO3, CO4, CO11	Apply	Procedural
CO5	Compare various methods for extraction, isolation and purification of phytoconstituents	CO1, CO2, CO3, CO4, CO11	Apply	Procedural

CO - PO Matrix

CO No.	Programme Outcome (PO)										PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1 2
CO1	3			1							2	NA NA
CO2	3		2								2	NA NA
CO3	3		2	3							2	NA NA
CO4	3		2	1							2	NA NA
CO5	3	1	2	3							2	NA NA
PO Target	3	1	2	2	3						2	NA NA

Faculty Members Teaching the Course		Signature
1. Daksh Bhatia		
2. Richa Goel		

Signature of Course Coordinator  Signature of Addl. HoD 

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The attainment of a CO must be formal assessment in course structure having mandatory and optional parts. The mandatory parts are A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.

Program Name: B. Pharm
 Course Name: Pharm. Jurisprudence Theory
 Department of Pharmacy
 Academic Session: 2023-24 Year: III
 Semester: V
 Course Coordinator Name: Mr. Pankaj

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Demonstrate the rules and regulations defined under the Drugs and Cosmetics act 1945.	PO-1,3,5,6,7,8,9,11	Apply	Factual & Conceptual
CO2	Illustrate the regulation by Pharmacy Act 1948, Medicinal and Toilet Preparations Act and Narcotic Drugs and Psychotropic Substances Act.	PO-1,3,5,6,7,8,9,11	Apply	Factual & Conceptual
CO3	Demonstrate the guidelines laid under the acts pertaining to prevention of cruelty to animals and national pricing authority.	PO-1,3,5,6,7,8,9,11	Apply	Factual & Conceptual
CO4	Illustrate the basics of pharmaceutical legislations and code of pharmaceutical ethics.	PO-1,3,5,6,7,8,9,11	Apply	Factual & Conceptual
CO5	Demonstrate the medical termination of pregnancy act, RTI act.	PO-1,3,5,6,7,8,9,11	Apply	Factual & Conceptual

Faculty Members Teaching the Course		Signature
1. Mr. Pankaj		
2. Dr. Garima		

Pankaj
 Signature of Course Coordinator

Richa
 Assoc./ Asst. Head DOC

Pankaj
 Signature of Addl. HoD

Pankaj
 Signature of HoD

Please Note (Reference: OBE Guidelines ref. Session 2021-22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

Department of Pharmacy
Academic Session: 2023-24
Course Code: BP505T

Semester: V
Year: III
Course Coordinator Name: Mr. Pankaj

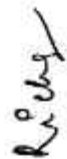
Program Name: B. Pharm
Course Name: Pharm. Jurisprudence Theory

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	1		1		1	2	3	1	1		2	NA	NA
CO2	1		1		1	2	3	1	2		2	NA	NA
CO3	1		1		1	2	3	1	1		2	NA	NA
CO4	1		1		1	2	3	1	2		2	NA	NA
CO5	1		1		1	2	3	1	1		2	NA	NA
PO Target	1		1		1	2	3	1	1.4		2	NA	NA

Faculty Members Teaching the Course		Signature
1. Mr. Pankaj		
2. Dr. Garima		


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021-22)

The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24

Semester: Vth

Course Name: Industrial Pharmacy I Practical

Course Code: BP506P

Course Coordinator Name: Ms. Surbhi Kamboj

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Determine various physicochemical parameters of drugs to perform preformulation studies.	1,2,3,4,7,8,10,11	Apply	Conceptual, Procedural
CO2	Prepare various dosage forms such as tablets, capsules, injections, eye ointments, eye drops and creams.	1,2,3,4,7,8,10,11	Create	Conceptual, Procedural
CO3	Evaluate tablets and capsules on various parameters	1,2,3,4,7,8,10,11	Evaluate	Conceptual, Procedural
CO4	Formulate coated tablets/granules	1,2,3,4,7,8,10,11	Create	Conceptual, Procedural

Faculty Members Teaching the Course	
1. Ms. Surbhi Kamboj	Signature 
2. Dr. Lakshmi	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

The institution of a CO must be formalized in the course outline. The institution must use Action & Knowledge and national level assessment and criteria.

Program Name: B. Pharm

Course Name: Industrial Pharmacy I Practical

Department of Pharmacy

Academic Session: 2023-24

Course Code: BP506P

Year: III

Semester: Vth

Course Coordinator Name: Ms. Surbhi Kamboj

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	2	2	1	-	-	1	1	-	1	1	NA	NA
CO2	3	2	3	1	-	-	1	1	-	1	1	NA	NA
CO3	3	1	3	1	-	-	1	1	-	1	1	NA	NA
CO4	3	2	3	1	-	-	1	1	-	1	1	NA	NA
PO Target	3.00	1.75	2.75	1.00	-	-	1.00	1.00	-	1.00	1.00	NA	NA

Faculty Members Teaching the Course		Signature
1.	Ms. Surbhi Kamboj	<i>Surbhi</i>
2.	Dr. Lakshmi	

Surbhi
Signature of Course Coordinator

Ruby
Assoc./ Asst. Head DOC

Ruby
Signature of Addl. HoD

Surbhi
Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).

Semester: V
Year: III
Course Coordinator Name: Dr. Roma Ghai

Department of Pharmacy
Academic Session: 2023-24
Course Code: BP507P

Program Name: B. Pharm
Course Name: Pharmacology-II Practical
Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the effect of drugs on isolated preparations of animal tissues using simulation software.	PO1, PO2, PO4, PO9, PO11	Apply	Conceptual & Procedural
CO2	Determine the pharmacological activity of drugs on animal models.	PO1, PO2, PO3, PO4, PO9, PO11	Apply	Conceptual & Procedural
CO3	Demonstrate different types of bioassay techniques on animal tissue preparations using simulation software	PO1, PO2, PO4, PO9, PO11	Apply	Conceptual & Procedural

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	1	-	3	-	-	-	-	1	-	3	NA	NA
CO2	3	1	2	2	-	-	-	-	1	-	2	NA	NA
CO3	3	1	-	3	-	-	-	-	1	-	2	NA	NA
PO Target	3	1	2	2.67	-	-	-	-	1	-	2.33	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr. Roma Ghai		
2. Dr. Abhishek Kumar		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm **Academic Session:** 2023-24 **Year:** 3 **Semester:** 5
Course Name: Pharmacognosy Practical **Course Code:** BP508P **Course Coordinator Name:** Dr. Richa Goel
Course Outcomes

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Acquire the knowledge of the morphology and microscopy of crude drugs.	PO-1,4,6,11	Apply	Conceptual & Procedural
CO2	Compare various methods for extraction and isolation of phytoconstituents.	PO-1,2,3,4,6,11	Evaluate	Conceptual & Procedural
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters.	PO-1,2,3,4,6,11	Analyze	Conceptual & Procedural

Faculty Members Teaching the Course	Signature
1. Dr. Richa Goel	<i>Richa</i>
2. Dr. Daksh Bhatia	<i>Daksh</i>

Richa

Signature of Course Coordinator

Richa

Assoc./ Asst. Head DOC

Richa

Signature of Addl. HoD

Richa

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of Pharmacy

Program Name: B.Pharm **Academic Session:** 2023-24 **Year:** 3 **Semester:** 5
Course Name: Pharmacognosy Practical **Course Code:** BP508P **Course Coordinator Name:** Dr. Richa Goel

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	-	-	1	-	2	-	-	-	-	1	NA	NA	NA
CO2	3	2	2	2	-	2	-	-	-	-	2	NA	NA	NA
CO3	3	2	2	2	-	2	-	-	-	-	2	NA	NA	NA
PO Target	3	2	2	1.67	-	2	-	-	-	-	1.67	NA	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr. Richa Goel		<i>Richa</i>
2. Dr. Daksh Bhatia		<i>[Signature]</i>

Richa

Signature of Course Coordinator

Richa

Assoc./ Asst. Head DOC

[Signature]

Signature of Addl. HoD

[Signature]

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Program Name: B. Pharm
Course Name: Report on Hospital Training-I
Academic Session: 2023-24
Course Code: BP509P
Year: III
Semester: V
Course Coordinator Name: Mr. Kapil Sachan

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the application and utilization of first aid (wound dressing, artificial respiration etc.).	PO- 1,3,4,6,7,9,11	Apply	Conceptual & Procedural
CO2	Apply different routes of injection on patients.	PO- 1,3,4,6,7,9,11	Apply	Conceptual & Procedural
CO3	Interpret the patient observation charts, prescriptions and dispensing, simple diagnostic reports, etc.	PO- 1,3,4,6,7,9,11	Apply	Conceptual & Procedural

Faculty Members Teaching the Course	Signature
1. Mr. Kapil Sachan	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD

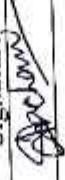

Signature of HoD

Department of Pharmacy

Program Name: B. Pharm
Course Name: Report on Hospital Training-I
Academic Session: 2023-24
Course Code: BP509P
Year: III
Semester: V
Course Coordinator Name: Mr. Kapil Sachan

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3		2	3		1	3		2		3	NA	NA
CO2	3		2	3		1	3		2		3	NA	NA
CO3	3		2	3		1	3		2		3	NA	NA
PO Target	3		2	3		1	3		2		3	NA	NA

Faculty Members Teaching the Course	Signature
1. Mr. Kapil Sachan	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Program Name: B. Pharm

Course Name: Instrumental Method of Analysis

Academic Session: 2023-24

Course Code: BP701T

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the basics and concepts of UV Visible spectroscopy, Fluorimetry and its applications.	PO1, PO3, PO4, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO2	Apply the basics and concepts of IR spectroscopy, flame photometry, atomic absorption spectroscopy, Nepheloturbidometry.	PO1, PO3, PO4, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO3	Demonstrate the basics and concepts of chromatography, TLC, paper chromatography, Electrophoresis.	PO1, PO3, PO4, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO4	Illustrate the basics and concepts of Gas chromatography and High-performance liquid chromatography.	PO1, PO3, PO4, PO6, PO7, PO9, PO11	Apply	Factual & Conceptual
CO5	Understand the basics and concepts of Ion exchange chromatography, Gel chromatography and Affinity chromatography.	PO1, PO3, PO4, PO6, PO7, PO9, PO11	Understand	Factual & Conceptual

Faculty Members Teaching the Course	
1. Shipra Singhal	Signature
2.	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Department of Pharmacy

Program Name: B. Pharm

Academic Session: 2023-24

Year: IV Semester: VII

Course Name: Instrumental Method of Analysis

Course Code: BP701T

Course Coordinator Name: Shipra Singhal

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3		2	3		2	1		2		2	NA	NA
CO2	3		2	3		2	1		2		2	NA	NA
CO3	3		2	3		2	1		2		1	NA	NA
CO4	3		2	3		2	1		2		2	NA	NA
CO5	3		2	3		2	1		2		2	NA	NA
PO Target	3		2	3		2	1		2		1.8	NA	NA

Faculty Members Teaching the Course	
3. Shipra Singhal	Signature
4.	

Shipra Singhal

Signature of Course Coordinator

Rishi

Assoc./ Asst. Head DOC

Shipra Singhal

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).

Program Name: B. Pharm
 Course Name: Industrial Pharmacy-II

Course Code: BP702T

Course Outcomes

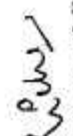
After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
C01	Explain pilot plant scale up techniques, SUPAC guidelines and platform technology in perspective of Indian Pharmaceutical setup	PO-1,2,3,4,7,8,10,11	Understand	Factual, Conceptual
C02	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	PO-1,2,3,4,5,7,8,10,11	Understand	Factual, Conceptual
C03	Outline regulatory affairs and various regulatory requirements for drug approval in context with regulatory framework of Pharma Industry	PO-1,3,6,7,8,9,10,11	Create	Factual, Conceptual
C04	Implement different aspects of Quality Management System in the capacity of quality product development	PO-1,2,3,4,6,7,8,10,11	Apply	Factual, Conceptual
C05	Determine Indian Regulatory Requirements	PO-1,2,3,6,7,8,9,10,11	Apply	Factual, Conceptual

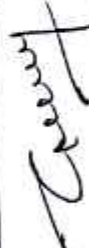
CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
C01	3	2	1	2			3	3		1	3	NA	NA
C02	3	3	3	2	2		3	3		1	3	NA	NA
C03	3		1			3	2	2	1	1	3	NA	NA
C04	3	3	3	2		2	2	3		3	3	NA	NA
C05	3	1	1			1	2	2	1	1	3	NA	NA
POTarget	3	2.25	1.80	2	1	2	2.40	2.60	1	1.40	3	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr Anuj Pathak		
2.		


 Signature of Course Coordinator


 Assoc./ Asst. Head DOC


 Signature of Addl. HoD


 Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

The mandatory marks are: Action & Knowledge and optional marks are: Evaluation and Projects

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of KSOP

Program Name: B. Pharm
Course Name: Pharmacy Practice
Course Outcomes

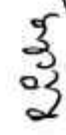
Academic Session: 2023-24
Course Code: BP703T
Year: IV
Semester: VII
Course Coordinator Name: Dr. Shardendu K Mishra

CO No.	Statement of Course Outcome	Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Acquire the basic knowledge of hospital organization, establishments of wholesale/retail drug store and role of pharmacist in hospital specifically in ADR monitoring.	PO-1,2,3,4, 6,7,8,9,11	Apply	Factual & Conceptual
CO2	Explore the drug distribution system in hospital, hospital formulary, Indian scenario for therapeutic drug monitoring and medical adherence to maintain the patient compatibility.	PO-1,2,3,4, 6,7,8,9,11	Analyze	Factual & Conceptual
CO3	Review the pharmacy policies and therapeutic committee to maintain the drug safety and medication error.	PO-1,2,3,6,7,8,9,11	Understand	Factual, Conceptual & Procedural
CO4	Illustrate the implementation of new budget in pharmacy and rational use of OTC medications.	PO-1,2,3,6,7,8,9,11	Analyze	Factual & Conceptual
CO5	Evaluate various methods of estimation of blood compositions and urine in clinical set-up.	PO-1,2,3,4, 6,7,8,9,11	Evaluate	Factual, Conceptual & Procedural

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Dr. Shardendu K Mishra		2. Ms. Priya Bansal	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Department of KSOP

Program Name: B. Pharm.
Course Name: Pharmacy Practice

Academic Session: 2023-24
Course Code: BP703T

Year: IV Semester: VII
Course Coordinator Name: Dr. Shardendu K. Mishra

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)												PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	2	2	1	-	3	2	2	3	-	2	NA	NA	NA
CO2	3	2	2	1	-	3	2	2	3	-	2	NA	NA	NA
CO3	3	2	2	-	-	2	2	3	3	-	2	NA	NA	NA
CO4	3	2	2	-	-	3	2	2	2	-	2	NA	NA	NA
CO5	3	2	3	1	-	3	2	1	2	-	2	NA	NA	NA
PO Target	3	2	2.2	1	-	2.8	2	2	2.6	-	2	NA	NA	NA

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
I. Dr. Shardendu K Mishra		2. Ms. Priya Bansal	



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Program Name: B. Pharm

Course Name: Novel Drug Delivery systems

Course Outcomes

Academic Session: 2023-24

Course Code: BP704T

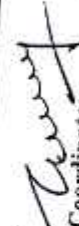
Year: 4th

Semester: 7th

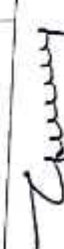
Course Coordinator Name: Dr. Lakshmi

After completion of the course, the student will be able to		Relevant POs/ PSOs/ APOs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand basic concepts related to various Novel drug delivery systems.	PO1, PO2, PO3, PO4, PO9 and P11	Understand	F, C
CO2	Analyze various novel drug delivery systems.	PO1, PO2, PO3, PO9 and P11	Analyze	C, P
CO3	Examine various approaches for development of various Novel drug delivery systems.	PO1, PO2, PO3, PO4, PO5, PO8, PO9 and P11	Apply	C, P
CO4	Apply different methods for development of novel drug delivery systems for various drugs.	PO1, PO2, PO3, PO4, PO8, PO9, PO10 and P11	Apply	C, P
CO5	Apply Novel drug delivery systems for various medical conditions.	PO1, PO2, PO3, PO4, PO8, PO9, PO10 and P11	Apply	C, P

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
1. Prof. N.G. Raghavendra Rao		2. Dr. Lakshmi	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.


Signature of HoD

KIET Group of Institutions, Delhi – NCK, Ghaziabad

KIET School Of Pharmacy

Program Name: B.Pharm
 Course Name: Novel Drug Delivery Systems Course Code: BP704T
 Academic Session: 2023-24
 Year: 4th
 Semester: 7th
 Course Coordinator Name: Dr. Lakshmi

CO - PO/PSO/APO Matrix

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2	1	1	-	-	-	-	1	-	1
CO2	3	2	1	-	-	-	-	-	1	-	1
CO3	3	3	2	1	1	-	-	2	1	-	1
CO4	3	3	3	1	-	-	-	1	1	2	1
CO5	3	3	2	1	-	-	-	1	2	1	1
PO Target	3	2.6	1.8	1	1	-	-	1.3	1.2	1.5	1

Faculty Members	Teaching the Course	Signature
1.Prof. N.G. Raghvendra Rao		
2.Dr. Lakshmi		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department of Pharmacy

Program Name: B. Pharm
Course Name: Instrumental Methods of analysis
Course Code: BP705P

Year: IVth

Semester: VIIth
Course Coordinator Name: Dr. Garima Kapoor

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply the Concept, Instrumentation and Applications of UV-Visible Spectroscopy and Fluorimetry.	1,4,6,8	Apply	Factual, Conceptual
CO2	Evaluate the principle and instrumentation and knowledge in IR spectroscopy, Flame Photometry, Atomic absorption spectrometry and Nephelo-turbidimetry.	1,4,6,8	Evaluate	Factual, Conceptual
CO3	Apply the concepts of Adsorption, Partition Column chromatography, TLC, Paper Chromatography and Electrophoresis with its applications.	1,4,6,8	Apply	Factual, Conceptual
CO4	Illustrate the concept of GC & HPLC with its advantages and applications.	1,4,6,8	Apply	Factual, Conceptual
CO5	Analyze the methodology in ion exchange, gel and affinity chromatography with its applications.	1,4,6,8	Analyze	Factual, Conceptual

Faculty Members Teaching the Course	
1. Dr. Garima Kapoor	Signature
2. Dr. Neha	

Garima Kapoor

Signature of Course Coordinator

Rishi

Assoc./ Asst. Head DOC

Garima Kapoor

Signature of Addl. HoD

Garima Kapoor

Signature of HoD

Department of Pharmacy

Program Name: B. Pharm

Course Name: Instrumental Methods of analysis

CO - PO Matrix

Academic Session: 2023-24

Course Code: BP705P

Year: IVth

Semester: VIIth

Course Coordinator Name: Dr. Garima Kapoor

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11		
CO1	3	-	1	3	1	2	-	2	-	-	1	NA	2
CO2	3	-	1	3	1	2	-	2	-	-	1	NA	NA
CO3	3	-	1	3	1	2	-	2	-	-	1	NA	NA
CO4	3	-	1	3	1	2	-	2	-	-	1	NA	NA
CO5	-	-	-	-	-	-	-	-	-	-	-	NA	NA
PO Target	3	-	1	3	1	2	-	2	-	-	1	NA	NA

Faculty Members Teaching the Course		Signature
3. Dr. Garima Kapoor		<i>Garima Kapoor</i>
4. Dr. Neha		

Garima Kapoor

Signature of Course Coordinator

Neha

Assoc./ Asst. Head DOC

Garima Kapoor

Signature of Addl. HoD

Garima Kapoor

Signature of HoD

Phase Note (Reference: OBE Guidelines w/ Session 2021 - 22)

- The strength of correlation between COs and POs/ PSO/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a "-" (dash).
- The maximum of a CO must be assigned correlation a across the entire matrix and notional marks. The correlation marks are: 1 (low), 2 (medium) and 3 (high).

Program Name: B. Pharm
Course Name: Practice School

Academic Session: 2023-24 Year: IV Semester: VII
Course Code: BP706PS Course Coordinator Name: Mr. Debaprasad Ghosh

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the concepts in thrust areas like drug designing, formulation development, QC-QA, 3D printing, nutraceuticals, cosmeceuticals, phytomedicines, alternative medicines, artificial intelligence, and pharmaceutical soft-wares.	PO- 1, 3, 4, 6, 7, 9, 11	Understand	Conceptual & Procedural
CO2	Acquire expertise in handling advanced instruments used in in thrust areas like drug designing, formulation development, QC-QA, 3D printing, artificial intelligence, nutraceuticals, cosmeceuticals, phytomedicines, alternative medicines and their applications in manufacturing and analysis of pharmaceuticals.	PO- 1, 3, 4, 6, 7, 9, 11	Apply	Conceptual & Procedural
CO3	Analyze the role of any of the subjects like drug designing, formulation development, QC-QA, 3D printing, artificial intelligence, nutraceuticals, cosmeceuticals, phytomedicines, alternate medicines in modern pharmaceutical setting.	PO- 1, 3, 4, 6, 7, 9, 11	Analyze	Conceptual & Procedural
CO4	Evaluate either advanced chemically designed drugs or advanced drug delivery systems or phytomedicines or nutraceuticals or cosmeceuticals or 3D printed pharmaceuticals or AI based pharmaceuticals or pharmaceutical soft-wares and their quality.	PO- 1, 3, 4, 6, 7, 9, 11	Evaluate	Conceptual & Procedural
CO5	Create modern pharmaceuticals or alternate therapeutic systems using expertise in either advanced chemical drug designing or modern formulations development methods or phytomedicines or nutraceuticals or cosmeceuticals or 3D printing technology or Artificial Intelligence or advanced pharmaceutical soft-wares or methods involved in controlling and assuring their quality.	PO- 1, 3, 4, 6, 7, 9, 11	Create	Conceptual & Procedural

Faculty Members Teaching the Course	
1. Mr. Debaprasad Ghosh	Signature

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Adm. HoD

Signature of HoD

- Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)
- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
 - The statement of a CO must be framed considering a career structure having knowledge and rational skills. The statement must use Action & Behavioural and cognitive verbs.

Department of Pharmacy

Program Name: B. Pharm
Course Name: Practice School
Academic Session: 2023-24
Course Code: BP706PS
Year: IV
Semester: VII
Course Coordinator Name: Mr. Debaprasad Ghosh

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3		2	2		1	1		1		2	NA	NA
CO2	3		2	3		1	1		1		2	NA	NA
CO3	3		2	2		1	1		1		2	NA	NA
CO4	3		2	3		1	1		1		2	NA	NA
CO5	3		2	3		1	1		1		2	NA	NA
PO Target	3		2	2.60		1	1		1		2	NA	NA

Faculty Members Teaching the Course	
1. Mr. Debaprasad Ghosh	Signature

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

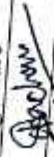
Please Note (Reference: OBE Guidelines w.r. Session 2021 - 22)

- The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
- If there is no correlation, then put a '-' (dash).

Program Name: B. Pharm
Course Name: Report on Hospital Training-II
Department of Pharmacy
Academic Session: 2023-24
Course Code: BP707P
Year: IV
Semester: VII
Course Coordinator Name: Mr. Kapil Sachan

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Observe the different sections and different departments of pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy.	PO- 1,2,3,4,6,8,9,10,11	Understand	Conceptual & Procedural
CO2	Explore the roles and responsibilities of pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy.	PO- 1,2,3,4,6,8,9,10,11	Apply	Conceptual & Procedural
CO3	Document the day-to-day learning as received in pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy.	PO-1,2,6,8,9,10,11	Analyze	Conceptual & Procedural
CO4	Understand the rules and regulations related with pharmaceutical industry/ CRO/ Hospital Pharmacy/ Clinical Pharmacy	PO- 1,2,6,9,10,11	Understand	Conceptual & Procedural
CO5	Acquire professional ethics and responsibilities towards the environment and the society.	PO- 1,2,5,6,7,9,10,11	Apply	Conceptual & Procedural

Faculty Members Teaching the Course	
1. Kapil Sachan	Signature
	


 Signature of Course Coordinator


 Assoc./ Asst. Head DOC


 Signature of Addl. HoD


 Signature of HoD

Program Name: B. Pharm
Course Name: Report on Hospital Training-II
Department of Pharmacy
Academic Session: 2023-24
Course Code: BP707P
Year: IV
Semester: VII
Course Coordinator Name: Mr. Kapil Sachan

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	1	1	3	-	1	-	1	1	1	3	NA	NA
CO2	3	1	1	3	-	1	-	1	1	1	3	NA	NA
CO3	3	1	-	-	-	3	-	3	1	1	2	NA	NA
CO4	3	1	-	-	-	1	-	-	3	1	2	NA	NA
CO5	1	1	-	-	3	1	3	-	1	3	3	NA	NA
PO Target	2.6	1	1	3	3	1.4	3	1.67	1.4	1.4	2.6	NA	NA

Faculty Members Teaching the Course	
1. Kapil Sachan	Signature

Kapil Sachan

Signature of Course Coordinator

Rishi

Assoc./ Asst. Head DOC

Kapil Sachan

Signature of Addl. HoD

Kapil Sachan

Signature of HoD

Please Note (Reference: OBE Guidelines wuf, Session 2021 - 22)
❖ The strength of correlation between COs and POs/ PSOs/APOs should be represented as 1 (low correlation), 2 (medium correlation) and 3 (high correlation) in CO - PO/APO/PSO Matrix.
❖ If there is no correlation, then put a "-" (dash)

KIET SCHOOL OF PHARMACY
Minutes of Meeting held on 01st April'2024 in KSOP Department

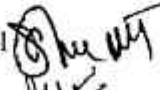
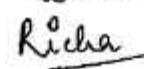
Agenda:

Discussion and approval of CO statements and CO-PO mapping for B.Pharm 2nd, 4th, 6th and 8th semester for session 2023-24

Time: 2.00 P.M.

Chair: Dr. K. Nagarajan (Principal-KSOP)

BoS Members Present:

1. Dr. N.G. Raghavendra Rao 
2. Dr. Ashu Mittal 
3. Dr. Roma Ghai 
4. Dr. Daksh Bhatia 
5. Dr. Richa Goel 

Topics Discussed:

1. The BoS members reviewed and approved the CO statements and CO-PO mapping as per IQAC requirements for the 2023-24 Even semester session.
2. The target benchmarks given by the respective subject teachers were also reviewed and approved for 2023-24 Even semester session.
3. The CO statements, CO-PO mapping and target benchmarks were handed over to OBE team for getting them uploaded on the KIET ERP Portal through the respective CO-coordinator.

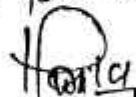

Prof. (Dr.) K. Nagarajan
Principal,
KIET School of Pharmacy




Dr. Anil K. Ahlawat
Dean Academics & Director In Charge,
KIET Group of Institutions

Siz:

The statements of CO's and CO-PO mapping is formed as per guidelines


05/04/24

KIET Group of Institutions - Ghaziabad

07-02-2024

KSOP Subject Allocation - Even Sem. 2023-24

Yr	Subject	Theory (Sec-A)	Signature	Theory (Sec-B)	Signature
I-Yr	Human Anatomy and Physiology II - Theory I-yr	Mr. Priya		Dr. Praveen	
	Pharmaceutical Organic Chemistry I - Theory I-yr	Dr. Abhay		Dr. Smita	
	Biochemistry - Theory I-yr	Mr. Soniya		Ms. Pragati	
	Pathophysiology - Theory I-yr	Dr. Praveen		Dr. Roma	
	Environmental Sciences - Theory I-yr	Mr. Balwan		Mr. Sanjeev	
	Computer Applications in Pharmacy - Theory I-yr	Ms. Sakshi		CS-Faculty	
II-Yr	Pharmaceutical Organic Chemistry III - Theory	Ms. Shipra		Mr. Soniya	
	Medicinal Chemistry I - Theory II-yr	Dr. Lalit		Ms. Shipra	
	Physical Pharmaceutics II - Theory II-yr	Dr. Rao		Mr. Ghosh	
	Pharmacology I - Theory II-yr	Dr. Vinay		Dr. Shardendu	
	Pharmacognosy I - Theory II-yr	Dr. Richa		Dr. Deepthi	
	Biomedical waste management II-yr	Ms. Surbhi		Ms. Sakshi	
III-Yr	Medicinal Chemistry III - Theory III-yr	Dr. Garima/Dr. Nagarajan		Dr. Lalit	
	Pharmacology III - Theory III-yr	Dr. Shardendu		Dr. Abhishek	
	Herbal Drug Technology - Theory III-yr	Mr. Balwan		Dr. Daksh	
	Biopharmaceutics and Pharmacokinetics - Theory	Mr. Sanjeev		Dr. Ashu	
	Pharmaceutical Biotechnology - Theory III-yr	Mr. Ghosh		Dr. Monika	
	Quality Assurance - Theory III-yr	Dr. Smridha		Dr. Lakshmi	
IV-Yr	Biostatistics and Research Methodology IV-yr	Dr. Richa		Dr. Barkha	
	Social and Preventive Pharmacy IV-yr	Ms. Vidhu		Ms. Sheena	
	Pharma Marketing Management* IV-yr	Ms. Shikha		Ms. Vidhu	
	Computer Aided Drug Design* IV-yr	Dr. Garima		Dr. Monika	
	Cosmetic Science* IV-yr	Mr. Anuj			
PG-QA	Hazards and Safety Management PG QA		Dr. Abhay		
	Pharmaceutical Validation PG QA		Ms. Surbhi		
	Audits and Regulatory PG QA		Dr. Smita		
	Pharmaceutical Manufacturing Technology PG QA		Dr. Smridha		
PG-Pharmaceutics	Molecular Pharmaceutics (Nano Tech and Targeted DDS)		Dr. Rao		
	Advanced Biopharmaceutics & Pharmacokinetics		Dr. Ashu		
	Computer Aided Drug Delivery System PG Pharmaceutics		Dr. Lakshmi		
	Cosmetic and Cosmeceuticals PG Pharmaceutics		Mr. Anuj		
PG-Pharmacology	Advanced Pharmacology II PG Cology		Dr. Vinay		
	Pharmacological and Toxicological Screening Methods-II		Dr. Abhishek		
	Principles of Drug Discovery PG Cology		Dr. Nagarajan		
	Clinical Research and Pharmacovigilance PG Cology		Dr. Roma		
D.Pharm-I	Pharmacognosy - Theory D.Pharm-I		Dr. Deepthi Katiyar		
	Social Pharmacy - Theory D.P-I	Mr. Priya Ranjan Bhadonia			
	Pharmaceutics - Theory D.P-I	Mr. Shubham Sharma			
	Pharmaceutical Chemistry - Theory D.Pharm-I	Ms. Shikha Kaulok			
	Human Anatomy & Physiology - Theory D.Pharm-I	Mr. Kajal Sachan			
D.Pharm-II	Pharmacy Law & Ethics D.P-II	Mr. Shubham Sharma			
	Community Pharmacy & Management D.Pharm-II	Ms. Konika Rao			
	Environmental Education and Disaster Management	Ms. Konika Rao			
	Biochemistry & Clinical Pathology D.Pharm-II	Ms. Sheena Mehta			
	Pharmacotherapeutics D.Pharm-II	Mr. Kunal Sachan			
	Pharmacology D.P-II	Dr. Abhishek/Dr. Priya Bansal			
	Hospital & Clinical Pharmacy D.Pharm-II	Mr. Priya Ranjan Bhadonia			

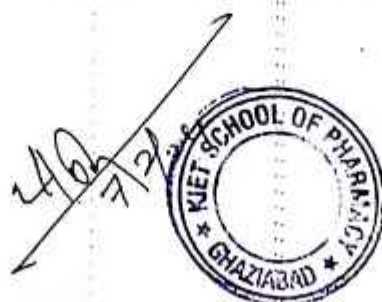


07-02-2024

KIET Group of Institutions - Ghaziabad

KSOP SUBJECT COORDINATOR- Even Sem, 2023-24

Yr	Subject	Subject Co-ordinator
I-yr	Human Anatomy and Physiology II – Theory I-yr	Dr. Praveen
	Pharmaceutical Organic Chemistry I – Theory I-yr	Dr. Abhay
	Biochemistry – Theory I-yr	Ms. Pragati
	Pathophysiology – Theory I-yr	Dr. Roma
	Environmental Sciences – Theory I-yr	Mr. Sanjeev
	Computer Applications in Pharmacy – Theory I-yr	Ms. Sakshi
	Human Anatomy and Physiology II- Practical	Dr. Praveen
	Pharmaceutical Organic Chemistry I- Practical	Dr. Smriti
	Biochemistry- Practical	Mr. Surya
	Computer Applications in Pharmacy- Practical	Ms. Sakshi
II-Yr	Pharmaceutical Organic Chemistry III – Theory	Ms. Shipra
	Medicinal Chemistry I – Theory II-yr	Dr. Lalit
	Physical Pharmaceutics II – Theory II-yr	Mr. Ghosh
	Pharmacology I – Theory II-yr	Dr. Shardendu
	Pharmacognosy I – Theory II-yr	Dr. Deepti
	Biomedical waste management II-yr	Ms. Surbhi
	Medicinal Chemistry I- Practical	Ms. Shipra
	Physical Pharmaceutics II- Practical	Dr. Rao
	Pharmacology I- Practical	Dr. Vinay
	Pharmacognosy I- Practical	Dr. Richa
III-Yr	Medicinal Chemistry III – Theory III-yr	Dr. Garima
	Pharmacology III – Theory III-yr	Dr. Shardendu
	Herbal Drug Technology – Theory III-yr	Mr. Balwan
	Biopharmaceutics and Pharmacokinetics – Theory	Dr. Ashu
	Pharmaceutical Biotechnology – Theory III-yr	Dr. Monika
	Quality Assurance – Theory III-yr	Dr. Lakshmi
	Medicinal Chemistry III- Practical	Dr. Lalit
	Pharmacology III- Practical	Dr. Abhishek
IV-Yr	Herbal Drug Technology- Practical	Dr. Daksh
	Biostatistics and Research Methodology IV-yr	Dr. Richa Agarwal
	Social and Preventive Pharmacy IV-yr	Ms. Sheena
	Pharma Marketing Management* IV-yr	Ms. Shikha
	Computer Aided Drug Design* IV-yr	Dr. Garima
	Cosmetic Science* IV-yr	Dr. Monika
PG-QA	Hazards and Safety Management PG QA	Dr. Abhay
	Pharmaceutical Validation PG QA	Ms. Surbhi
	Audits and Regulatory PG QA	Dr. Smriti
	Pharmaceutical Manufacturing Technology PG QA	Dr. Snigdha
	PRACTICAL	Dr. Smriti
PG-P'ceutics	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	Dr. Rao
	Advanced Biopharmaceutics & Pharmacokinetics	Dr. Ashu
	Computer Aided Drug Delivery System PG P'Sceutics	Dr. Lakshmi
	Cosmetic and Cosmeceuticals PG P'Sceutics	Mr. Anuj
	PRACTICAL	Dr. Snigdha
PG-P' Cology	Advanced Pharmacology II PG Cology	Dr. Vinay
	Pharmacological and Toxicological Screening Methods-II	Dr. Abhishek
	Principles of Drug Discovery PG Cology	Dr. Nagarajan
	Clinical Research and Pharmacovigilance PG Cology	Dr. Roma
	PRACTICAL	Dr. Vinay



KIET SCHOOL OF PHARMACY
KIET GROUP OF INSTITUTIONS
GHAZIABAD

TARGET BENCHMARK EVEN SEMESTER 2023-24

SNO.	SUBJECT CODE	SUBJECT NAME	SUBJECT TYPE	FACULTY NAME	INTERNAL TARGET	EXTERNAL TARGET
1	BP201T	Human Anatomy and Physiology II	Theory	Dr Praveen	58	58
2	BP202T	Pharmaceutical Organic Chemistry I	Theory	Dr Abhay	55	50
3	BP203T	Biochemistry	Theory	Pragati Gupta	60	57
4	BP204T	Pathophysiology	Theory	Dr Rona	59	58
5	BP205T	Computer Applications in Pharmacy	Theory	Ms Sakshi Garg -2	60	* NA
6	BP206T	Environmental Sciences	Theory	Mr Sanjeev Chaudhan	66	NA
7	BP207P	Human Anatomy and Physiology II	Practical	Dr Praveen	70	70
8	BP208P	Pharmaceutical Organic Chemistry I	Practical	Dr Smriti	70	70
9	BP209P	Biochemistry	Practical	Mr. Surya	60	65
10	BP210P	Computer Applications in Pharmacy	Practical	Ms Sakshi Garg -2	70	70
11	BP401T	Pharmaceutical Organic Chemistry III	Theory	Ms Shalpa	58	56
12	BP402T	Medicinal Chemistry I	Theory	Dr. Lalit	60	55
13	BP403T	Physical Pharmaceutics II	Theory	Mr. Debaprasad Ghosh	55	52
14	BP404T	Pharmacology I	Theory	Dr Shardendu	56	54
15	BP405T	Pharmacognosy I	Theory	Dr Deepu	55	56
16	BP406P	Medicinal Chemistry I	Practical	Ms Shipra	70	70
17	BP407P	Physical Pharmaceutics II	Practical	Dr NGR Rao	70	70
18	BP408P	Pharmacology I	Practical	Dr Vinay	70	70
19	BP409P	Pharmacognosy I	Practical	Dr Richa	70	70
20	BP601T	Medicinal Chemistry III	Theory	Dr Garima	60	57
21	BP602T	Pharmacology III	Theory	Dr Shardendu	58	56
22	BP603T	Herbal Drug Technology	Theory	Mr Balwan	55	57
23	BP604T	Biopharmaceutics and Pharmacokinetics	Theory	Dr Ashu	55	54
24	BP605T	Pharmaceutical Biotechnology	Theory	Dr Monika	57	57
25	BP606T	Quality Assurance	Theory	Dr Lakshmi	55	55
26	BP607P	Medicinal Chemistry III	Practical	Dr Lalit	70	70
27	BP608P	Pharmacology III	Practical	Dr Abhishek	70	70
28	BP609P	Herbal Drug Technology	Practical	Dr Daksh	70	70
29	BP610P	Report on Industrial Training	Practical	Mr. Debaprasad Ghosh	NA	55
30	BP801T	Biostatistics and Research Methodology	Theory	Dr Richa Agarwal	60	54
31	BP802T	Social and Preventive Pharmacy	Theory	Ms Sheena	57	57
32	BP803ET	Pharma Marketing Management	Theory	Ms Shikha	62	62
33	BP807ET	Computer Aided Drug	Theory	Dr Garima	65	61
34	BP809ET	Cosmetic Science	Theory	Dr Monika	57	59
35	BP815PW	Project Work	Practical	Mr. Debaprasad Ghosh	NA	55
36	BP816P	Report on Industrial Tour	Practical			



KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: HAP-II
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP201T

Year: I Semester: II
Course Coordinator Name: Dr. Praveen K. Dixit

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the anatomy and physiology of the Nervous system.	1, 6, 9, 11	Understand	Factual & Conceptual
CO2	Illustrate anatomy and physiology of Digestive System and energetics (ATP, Creatinine Phosphate).	1, 6, 9, 11	Apply	Factual & Conceptual
CO3	Explore the structure and functions of Respiratory System and Urinary System.	1, 6, 9, 11	Analyze	Factual & Conceptual
CO4	Illustrate the anatomical and physiological aspects of the Endocrine System.	1, 6, 9, 11	Apply	Factual & Conceptual
CO5	Infer the structural and functional aspects of Reproductive System and Genetics	1, 6, 9, 11	Analyze	Factual & Conceptual

Programme Outcome (PO)											
CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3					1			1		2
CO2	3					1			1		2
CO3	3					1			1		2
CO4	3					1			1		2
CO5	3					1			1		2
PO Target	3					1			1		2
Faculty Members Teaching the Course			Signature		Faculty Members Teaching the Course				Signature		
Dr. Praveen K. Dixit			Praveen		Mrs. Priya Bansal				Priya Bansal		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines w.r. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Program Name: B. Pharm
Course Name: P. Organic Chemistry-I
Course Outcomes

Academic Session: Even 2023-24
Course Code: BP202T

Year: I

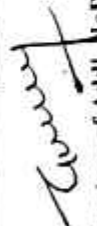
Semester: II

Course Coordinator Name: Dr. Abhay Bhardwaj

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the chemistry and isomerism of Organic Compounds.	1, 3, 4, 6, 7, 9, 11	Apply	Factual & Conceptual
CO2	Illustrate the chemistry and applications of Alkanes, Alkenes and Conjugated dienes.	1, 3, 4, 6, 7, 9, 11	Apply	Factual & Conceptual
CO3	Understand the chemistry and applications of Alkyl halide and Alcohols	1, 3, 4, 6, 7, 9, 11	Apply	Factual & Conceptual
CO4	Understand about chemistry and applications of Carbonyl compounds.	1, 3, 4, 6, 7, 9, 11	Apply	Factual & Conceptual
CO5	Describe chemistry and applications of Carboxylic acids and Amines.	1, 3, 4, 6, 7, 9, 11	Apply	Factual & Conceptual

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
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

Faculty Members Teaching the Course		Faculty Members Teaching the Course	
Signature	Signature	Signature	Signature
Dr. Abhay Bhardwaj		Dr. Smriti	

Signature of Course Coordinator		Signature of Addl. HoD	
Signature	Signature	Signature	Signature
			

Please Note (Reference: OBE Guidelines w.r. Session 2021 - 22)

- The theory classes/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ m m project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be framed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Consultation and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Biochemistry
Course Outcomes

KIET School of Pharmacy
Academic Session: Even 2023-24
Course Code: BP203T

Year: I
Semester: II
Course Coordinator Name: Pragati Gupta

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply the concepts of biomolecules and bioenergetics.	1,10,11	Apply	Factual & Conceptual
CO2	Explore the knowledge of carbohydrate metabolism and biological oxidation and underlying diseases.	1,9,10,11	Apply	Factual & Conceptual
CO3	Analyze the concepts of lipid and amino acid metabolism and their role in various diseases.	1,6,9,10,11	Analyze	Factual & Conceptual
CO4	Illustrate the concept of nucleic acid metabolism and transfer of genetic information.	1,3,4,6,9,10,11	Analyze	Factual & Conceptual
CO5	Classify various types of enzymes and their role as diagnostic and therapeutic applications	1,2,3,4,6,7,8,10,11	Analyze	Conceptual & Procedural

Programme Outcome (PO)											
CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	-	-	-	-	-	-	-	1	2
CO2	3	-	-	-	-	-	-	-	2	1	2
CO3	3	-	-	-	-	1	-	-	2	1	2
CO4	3	-	3	2	-	2	-	-	2	1	2
CO5	3	1	1	1	-	1	1	2	1	1	2
PO Target	3.00	1.00	2.00	1.50	-	1.33	1.00	2.00	1.75	1.00	2.00

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Ms. Pragati Gupta		Mr. Surya Prakash	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Program Name: B. Pharm
Course Name: Pathophysiology
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP204T

Year: I Semester: II

Course Coordinator Name: Dr. Roma Ghai

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the basic mechanisms involved in the process of injury and inflammation.	1, 11	Understand	Factual & Conceptual
CO2	Illustrate the pathological mechanisms involved in the development of cardiovascular, renal, and respiratory diseases.	1,9,11	Apply	Factual & Conceptual
CO3	Explore the mechanisms of development of diseases associated with the blood, endocrine, nervous, and gastrointestinal systems.	1,9,11	Analyze	Factual & Conceptual
CO4	Illustrate the development and progression of inflammatory diseases along with cancer.	1,9,11	Apply	Factual & Conceptual
CO5	Infer the etiology and pathogenesis of infectious and sexually transmitted diseases.	1,9,11	Analyze	Factual & Conceptual

Programme Outcome (PO)

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3										
CO2	3								2		2
CO3	3								2		2
CO4	3								2		2
CO5	3								2		2
PO Target	3								2		2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Roma Ghai		Dr. Praveen Kumar Dixit	

Signature of Course Coordinator

Assoc./ Asst.-Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines w.e.f. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Computer Applications in Pharmacy
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP205T

Year: I

Course Coordinator Name: Ms. Sakshi Garg

Semester: II

Ms. Sakshi Garg

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the concept of number systems and information systems.	3,4,8,11	Understand	Factual & Conceptual
CO2	Interpret various web technologies and databases.	1,2,3,4,5,10,11	Evaluate	Factual & Conceptual
CO3	Illustrate the various types of application of computers in pharmacy.	1,2,3,4,5,6,7,8,11	Apply	Factual & Conceptual
CO4	Explore the objective, concept, and impact of Bioinformatics	1,2,3,4,6,7,8,9,11	Analyze	Factual & Conceptual
CO5	Acquire the application of computers in data analysis in Preclinical development.	1,2,3,4,5,6,7,8,10,11	Apply	Conceptual & Procedural

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	-	-	2	3	-	-	-	2	-	-	3
CO2	2	2	2	3	2	-	-	-	-	2	3
CO3	3	3	2	3	2	2	3	3	-	-	3
CO4	3	2	2	3	-	2	3	2	3	-	3
CO5	3	3	2	2	2	2	2	2	-	2	2
PO Target	2.75	2.5	2	2.8	2	2	2.6	2.25	3	2	2.8

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Ms. Sakshi Garg			

Signature of Course Coordinator Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Program Name: B. Pharm
Course Name: Environmental Sciences
Course Outcomes

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Academic Session: Even 2023-24
Course Code: BP206T

Year: I

Course Coordinator Name:

Semester: II

Mr. Sanjeev Chauhan

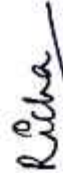
CO No.	After completion of the course, the student will be able to	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the concept of environmental studies with its natural resources.	2,3,5,6,7,8,9,10,11	Understand	Factual & Conceptual
CO2	Determine the concept of ecosystem and its structural and functional components with its classification.	2,3,5,6,7,8,9,10,11	Understand	Conceptual
CO3	Illustrate the concept of environmental pollution, its impacts and mitigation measures.	2,3,5,6,7,8,9,10,11	Analyze	Conceptual & Factual

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1		1	1		1	2	1	1	3	3	3
CO2		2	1		1	1	1	1	2	3	3
CO3		3	3		1	2	1	1	3	3	3
PO Target		2	~1.67		1	1.67	1	1	2.67	3	3

Faculty Members Teaching the Course		Faculty Members Teaching the Course	
Mr. Sanjeev Chauhan	Signature	Mr. Balwan Singh	Signature



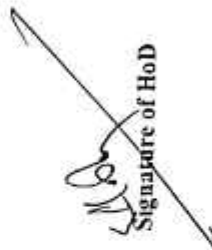
Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: HAP-II (Practical)
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP207P

Year: I Semester: II

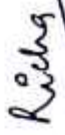
Course Coordinator Name: Dr. Praveen K. Dixit

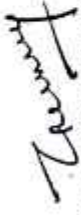
After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the anatomy and physiology of CNS, Digestive system, Respiratory system, urinary system, endocrine system and reproductive system using models and charts.	1,8,11	Understand	Conceptual
CO2	Illustrate the practical aspects related to reflex activity, body temperature recording, lung capacities, BMI and their importance.	1,8,9,11	Apply	Conceptual, Procedural
CO3	Understand the different mechanisms of responses related to sense organs and nervous system.	1,8,11	Understand	Conceptual

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3							1			2
CO2	3							1	2		2
CO3	3							1			2
PO Target	3							1	2		2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Praveen Kumar Dixit		Mrs. Priya Bansal	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Organic Chemistry Practical
Course Outcomes

KIET School of Pharmacy
Academic Session: Even 2023-24
Course Code: 208 P
Year: I Semester: II
Course Coordinator Name: Dr. Smriti Sahu

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Create hands-on laboratory skills necessary for performing organic chemistry experiments, including proper handling of laboratory equipment and adherence to safety protocols.	1,2,3, 4,6,7,8,9,10,11	Create	Conceptual & Procedural
CO2	Apply Synthetic Techniques to prepare pharmaceutical compounds, gaining proficiency in common laboratory procedures for the synthesis of organic molecules.	1,2,3, 4,6,7,9,10,11	Apply	Conceptual & Procedural
CO3	Explore methods for the isolation and purification of organic compounds, including techniques such as extraction, distillation, and chromatography.	1,2,3, 4,6,7,8,9,10,11	Apply	Conceptual & Procedural

Programme Outcome (PO)										
CO No.	1	2	3	4	5	6	7	8	9	10
CO1	3	3	3	3		2	3	2	2	11
CO2	3	3	3	3		2	2		2	2
CO3	3	3	3	3		2	2	2	2	2
PO Target	3	3	3	3		2	2.33	2	2	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Smriti Sahu	Smriti Sahu	Dr. Ashay Shrivastava	Ashay Shrivastava

Signature of Course Coordinator

Richa

Signature of Addl. HoD

Signature of Addl. HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

The theory courses/ project having credits 3 to 6 should have 5 number of COs.

The statement of a CO must be formed considering a proper structure having mandatory and optional parts.

Program Name: B. Pharm
Course Name: Biochemistry Practical
Course Outcomes

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Analyze different carbohydrates, proteins and abnormal constituents of urine	PO-1,2,3,4,6,7,8,9,10,11	Analyze	Factual, Procedural
CO2	Determination of blood creatinine, Salivary amylase, blood sugar and serum total cholesterol.	PO-1,2,3,4,5,6,7,8,9,10,11	Apply	Factual, Procedural
CO3	Quantitative analysis of reducing sugars (DNSA method) and Proteins	PO-1,2,3,4,5,6,7,8,9,10,11	Analyze	Factual, Procedural

CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	3	1	1		1	1	1	1	1		NA	NA
CO2	3	3	2	2	1	1	2	1	2	2	1	NA	NA
CO3	3	3	2	2	1	1	2	1	2	2	1	NA	NA
POTarget	3	3	1.67	1.67	1	1	1.67	1	1.67	1.67	1	NA	NA

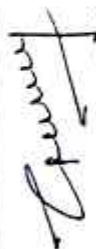
Faculty Members Teaching the Course		Signature
1. Mr Surya Prakash		
2.		



Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD

Please Note (Reference: OBE Guidelines vcf, Session 2021 - 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be framed considering a proper structure having mandatory and optional mode. The mandatory mode are Action & Knowledge and optional mode are Condition and Criteria

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm/M. Pharm
 Course Name: Computer Applications in Pharmacy
 Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
 Year: I
 Semester: II
 Course Code: BP210P
 Course Coordinator Name: Ms. Sakshi Garg

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Apply the knowledge of computing fundamentals to pharmaceutical applications for any given requirement.	1,2,3,4,6,8,9,11	Apply	Factual and Conceptual
CO2	Analyse the contemporary IT tools(web technologies and databases) with Pharmaceutical activities.	1,2,3,4,5,6,7,9,10,11	Analyze	Procedural
CO3	Interpret the various application of databases in pharmacy.	1,4,6,7,8,9,10,11	Understand	Procedural and Conceptual

Programme Outcome (PO)										
CO No.	1	2	3	4	5	6	7	8	9	10
CO1	3	2	2	2	-	2	-	3	2	-
CO2	3	2	2	3	2	2	2	-	2	2
CO3	3	-	-	2	-	2	2	2	3	2
PO Target	3	2	2	2.3	2	2	2	2.5	2.3	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Ms. Sakshi Garg			


 Signature of Course Coordinator


 Assoc./ Asst. Head DOC


 Signature of Addl. HoD


 Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm

Course Name: Pharmaceutical Organic Chemistry-III

Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Course Code: BP401T

Year: II Semester: IV

Course Coordinator Name: Ms. Shipra Singhal

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Illustrate about Stereo isomerism, Optical isomerism.	1, 2, 3, 7, 11	Apply	Factual & Conceptual
CO2	Illustrate about Geometrical isomerism and Conformational isomerism.	1, 2, 3, 7, 11	Apply	Factual & Conceptual
CO3	Outline the nomenclature, classification, synthesis and reaction of some heterocyclic compounds.	1, 2, 3, 6, 7, 9, 11	Apply	Conceptual
CO4	Summarize the Synthesis. reactions and medicinal uses of some heterocyclic compounds.	1, 2, 3, 7, 9, 11	Apply	Conceptual
CO5	Outline some important synthetic name reactions.	1, 2, 3, 7, 9, 11	Apply	Conceptual

Programme Outcome (PO)

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	2	-	-	-	3	-	-	-	2
CO2	3	1	2	-	-	-	3	-	-	-	2
CO3	3	1	2	-	-	2	3	-	2	-	2
CO4	3	1	2	-	-	-	3	-	2	-	2
CO5	3	1	2	-	-	-	3	-	2	-	2
PO Target	3	1	2	-	-	2	3	-	2	-	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Ms. Shipra Singhal	Shipra	Mr. Surya Prakash	Surya

Signature of HoD

Signature of Asst. HoD

Assoc./ Asst. Head DOC

Signature of Course Coordinator

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs
- The statement of a CO must be formed considering a proper structure

theory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
 Course Name: Medicinal Chemistry -I Theory
 Course Code: BP402T
 Course Coordinator Name: Dr. Lalit Mohan Nainwal
 KIET School of Pharmacy
 Academic Session: Even 2023-24
 Year: II
 Semester: IV

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand basics of medicinal chemistry, physicochemical and stereochemical properties in relation to drug design and drug metabolism.	1, 2, 3, 6, 7, 9, 10, 11	Understand	Factual and Conceptual
CO2	Explore the chemistry of drugs acting on adrenergic system.	1, 2, 3, 6, 7, 9, 10, 11	Apply	Factual and Conceptual
CO3	Explore the chemistry of drugs acting on cholinergic system.	1, 2, 3, 6, 7, 9, 10, 11	Apply	Factual and Conceptual
CO4	Illustrate the chemistry of drugs acting on CNS such as sedative, hypnotics, antipsychotics and anticonvulsants.	1, 2, 3, 6, 7, 9, 10, 11	Apply	Conceptual
CO5	Explain the chemistry of general anesthetics, narcotic & non-narcotic analgesics and anti-inflammatory agents	1, 2, 3, 6, 7, 9, 10, 11	Apply	Conceptual

Programme Outcome (PO)

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	1	-	-	3	3	-	3	2	3
CO2	3	1	1	-	-	3	1	-	3	1	2
CO3	3	1	1	-	-	3	1	-	3	1	2
CO4	3	1	1	-	-	3	1	-	3	1	2
CO5	3	1	1	-	-	3	1	-	3	1	2
PO Target	3	1	1	-	-	3	1.4	-	3	1.2	2.2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Lalit Mohan Nainwal	<i>[Signature]</i>	Ms. Shipra	<i>[Signature]</i>

Signature of Course Coordinator
[Signature]
 Assoc./ Asst. Head DOC
[Signature]
 Signature of Addl. HoD
[Signature]
 Signature of HoD
[Signature]

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Evaluation and Criteria.

KIET Group of Institutions, Delhi – NCR, Gaziabad

Program Name: B. Pharm

Course Name: Physical Pharmaceutics-II Theory

Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Course Code: BP403T

Year: II Semester: IV

Course Coordinator Name: Mr. Debaprasad Ghosh

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Examine the types, general characteristics, and effect of various factors on Colloidal dispersions.	1, 3, 4.	Apply	Factual, Procedural.
CO2	Identify the rheological behavior of fluids and the principles of deformation of solids.	1, 3, 4, 11.	Analyze	Conceptual, Procedural.
CO3	Analyze the theories, types, various properties, and stability of Coarse dispersions like suspensions and emulsions.	1, 3, 4, 11.	Analyze	Conceptual, Procedural.
CO4	Analyze various aspects of micrometrics.	1, 3, 4.	Analyze	Conceptual, Procedural.
CO5	Analyze the effects of kinetics, degradation factors and common reactions on the stability of drugs including accelerated stability studies and their prevention.	1, 2, 3, 4, 6, 7, 8, 9, 10, 11.	Analyze	Conceptual, Procedural.

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1			2	3							
CO2			2	3							
CO3			2	2							2
CO4			2	3							2
CO5		2	2	3		2	2	2	2	2	2
PO Target	3.00	2.00	2.00	2.80		2	2	2	2	2	2.00

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Mr. Debaprasad Ghosh	<i>Debaprasad Ghosh</i>	Prof. (Dr.) N.G. Raghavendra Rao	<i>N.G. Raghavendra Rao</i>

Debaprasad Ghosh
Signature of Course Coordinator

Richa
Assoc./ Asst. Head DOC

N.G. Raghavendra Rao
Signature of Addl. HoD

Debaprasad Ghosh
Signature of HoD

I have 3 condition

Please Note (Reference: OBE Guidelines w.r. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.



KIET Group of Institutions, Delhi – NCR, Gaziabad

Program Name: B. Pharm
Course Name: Pharmacology-I
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Year: II

Course Code: BP404T

Semester: IV

Course Coordinator Name: Dr. Shardendu Kumar Mishra

After completion of the course, the student will be able to				
CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Acquire concept of general pharmacology and pharmacokinetics.	1,3,6,7,8,9,11	Apply	Factual & Conceptual
CO2	Analyze the mechanism of action of drugs, related adverse drug reaction and drug interactions.	1,3,6,7,8,9,11	Analyze	Factual & Conceptual
CO3	Apply the implications of peripheral nervous system in treatment of associated diseases.	1,3,6,7,8,9,11	Apply	Conceptual & Procedural
CO4	Apply the implications of central nervous system in treatment of neurological diseases.	1,3,6,7,8,9,11	Apply	Factual & Conceptual
CO5	Audit the significance of drugs in pharmacotherapy of various diseases and management of adverse effects.	1,3,6,7,8,9,11	Analyze	Conceptual & Procedural

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3		2			3	3		2		3
CO2	3		2			3	3	2	2		3
CO3	3		2			3	3		2		3
CO4	3		2			3	3		2		3
CO5	3		2			3	3	2	2		3
PO Target	3		2			3	3	2	2		3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Shardendu Kumar Mishra			

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines w.r. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ minor project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Gaziabad

Program Name: B. Pharm

KIET School of Pharmacy

Course Name: Pharmacognosy & Phytochemistry I

Academic Session: Even 2023-24

Year: II

Semester: IV

Course Code: BP 405T

Course Coordinator Name: Dr. Deepti Katiyar

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Appraise the sources, classification and quality control of herbal drugs.	1, 11	Evaluate	Factual, Conceptual & Procedural
CO2	Attain the knowledge of the cultivation & production of crude drugs and conservation of medicinal plants.	1, 3, 7, 10, 11	Apply	Factual, Conceptual & Procedural
CO3	Illustrate the concepts of Plant Tissue Culture and to describe properties of edible vaccines.	1, 3, 4, 10, 11	Analyze	Conceptual & Procedural
CO4	Acquire the knowledge of traditional systems of medicine and to summarize properties of various secondary metabolites.	1, 3, 6, 11	Apply	Factual & Conceptual
CO5	Explore the properties and applications of plant fibers, hallucinogens, carbohydrates, lipids, proteins, enzymes and marine products.	1, 3, 6, 11	Analyze	Factual & Conceptual

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1											
CO2			2				2			2	2
CO3			2	3						2	2
CO4			2			2					2
CO5			2			2					2
PO Target	3.00		2.00	3.00		2.00	2.00			2.00	2.00

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Deepti Katiyar	<i>Deepti</i>	Dr. Richa Goel	<i>Richa</i>

Signature of Course Coordinator

Richa

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits less than 3 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Medicinal Chemistry-I Practical
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP406P

Year: II Semester: IV

Course Coordinator Name: Ms. Shipra Singhal

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the synthesis of some heterocyclic drugs or intermediates.	1, 2, 3, 4, 6, 7, 8, 9, 10, 11	Apply	Conceptual & Procedural
CO2	Analyze the purity of some heterocyclic drugs.	1, 2, 3, 4, 6, 7, 8, 9, 11	Analyze	Conceptual & Procedural
CO3	Analyze the partition coefficient of some drugs.	1, 2, 7, 8, 9, 10	Analyze	Conceptual & Procedural

CO No.	Programme Outcome (PO)									
	1	2	3	4	5	6	7	8	9	10
CO1	3	2	1	1	-	1	2	2	2	2
CO2	3	2	1	1	-	1	3	2	2	-
CO3	3	2	-	-	-	-	2	2	2	-
PO Target	3	2	1	1	-	1	2.3	2	2	3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Ms. Shipra Singhal	<i>Shipra</i>	MS. SHIKHA KAUSHIK/ Mr. Surya Prakash	<i>Shipra</i>

Shipra

Signature of Course Coordinator

Richa

Assoc./ Asst. Head DOC

Shipra

Signature of Addl. HoD

Shipra

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- ❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- ❖ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm

Course Name: Physical Pharmaceutics-II Practical
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Course Code: BP407P

Year: 2nd Semester: IV

Course Coordinator Name: Prof. (Dr.) N. G. R. Rao

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Evaluate Particle size, Particle size distribution, and derived properties of the powder.	1, 2, 3, 4, 7, 9, 10, 11	Evaluate	Conceptual and Procedural
CO2	Calculate the viscosity of viscous samples using different methods.	1, 2, 3, 4, 7, 9, 10, 11	Evaluate	Conceptual and Procedural
CO3	Evaluate the prepared suspension and emulsion formulations and kinetics of chemical reactions with stability studies	1, 2, 3, 4, 7, 9, 10, 11	Evaluate	Conceptual and Procedural

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2	2	3			1		1	1	1
CO2	3	2	2	3			1		1	1	1
CO3	3	2	2	3			2		1	1	2
PO Target	3.00	2.00	2.00	3.00			1.3		1.00	1.00	1.3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Prof. (Dr.) N.G. Raghavendra Rao		Mr. Debaprasad Ghosh	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Pharmacology I – Practical
Course Outcomes

KIET School of Pharmacy
Academic Session: Even 2023-24 **Year: II** **Semester: IV**
Course Code: BP408P **Course Coordinator Name: Dr. Vinay Kumar**

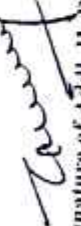
After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the instruments and laboratory animals as per CPCSEA guidelines used in experimental pharmacology.	1,2,3,4,6,7,8,9,11	Understand	Conceptual & Procedural
CO2	Understand the different routes of drug administration in mice/rats and various laboratory techniques used for animal studies.	1,2,3,4,6,7,8,9,11	Understand	Conceptual & Procedural
CO3	Understand the effect of enzyme inducers on sleeping time in mice and the effect of drugs on ciliary motility in frogs.	1,2,3,4,6,7,8,9,11	Understand	Conceptual & Procedural
CO4	Understand the role of muscle various drugs acting on CNS and PNS in experimental pharmacology.	1,2,3,4,6,7,8,9,11	Understand	Conceptual & Procedural
CO5	Apply the concept of antiepileptic, anxiolytic activity and study of local anaesthetic agents in rats.	1,2,3,4,6,7,8,9,11	Apply	Conceptual & Procedural

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	2	2	-	2	2	2	3		3
CO2	3	1	2	2	-	2	2	2	3		3
CO3	3	1	2	2	-	2	2	2	3		3
CO4	3	1	2	2	-	2	2	2	3		3
CO5	3	1	2	2	-	2	2	2	3		3
PO Target	3	1	2	2	-	2	2	2	3		3

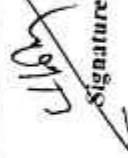
Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Vinay Kumar			

Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HOD


Please Note (Reference: OBE Guidelines ver. Session 2021 – 22)
 ♦ The theory courses/ project having credits 3 to 6 should have 5 number of COs.
 ♦ The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria

Signature of HoD


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KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

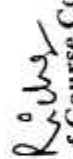
Program Name: B. Pharm **Academic Session:** Even 2023-24 **Year:** II **Semester:** IV
Course Name: Pharmacognosy I- Practical **Course Code:** BP409P **Course Coordinator Name:** Dr. Richa Goel

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Describe the tools used in quantitative microscopy and understand the concepts behind the procedures used.	1,2,3,4,6,11	Understand	Conceptual & Procedural
CO2	Evaluate the crude drugs on the basis of WHO guidelines.	1,2,3,4,6,7,11	Evaluate	Conceptual & Procedural
CO3	Analyze the specified phytoconstituents utilizing the standardized parameters.	1,2,3,4,6,11	Analyze	Conceptual & Procedural

Programme Outcome (PO)										
CO No.	1	2	3	4	5	6	7	8	9	10
CO1	2	2	2	2		1				3
CO2	3	3	3	3		3	3			3
CO3	3	3	3	3		3				3
PO Target	2.67	2.67	2.67	2.67		2.33	3.00			3.00

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Richa Goel.			

Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD


Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Gaziabad

KIET School of Pharmacy

Semester: VI

Academic Session: Even 2023-24

Year: III

Course Coordinator Name: Dr. Garima Kapoor

Course Code: BP601T

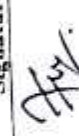
Program Name: B. Pharm

Course Name: Medicinal Chemistry-III

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate classification, nomenclature, mechanism of action, SAR and uses of different classes of antibiotics.	1, 3, 9, 11	Apply	Conceptual
CO2	Illustrate classification, mechanism of action and SAR of Antimalarials, Anti-tubercular, Urinary tract anti-infective, Antifungal, Anti-protozoal Agents and Anthelmintics.	1, 3, 9, 11	Apply	Conceptual
CO3	Illustrate classification, mechanism of action and SAR of different categories of Antiviral agents.	1, 3, 9, 11	Apply	Conceptual
CO4	Illustrate classification, mechanism of action and SAR of Sulphonamides and Sulfones. Folate reductase inhibitors.	1, 3, 9, 11	Apply	Conceptual
CO5	Analyze the concept of Drug Design, and Combinatorial Chemistry.	1, 3, 4, 6, 9, 11	Analyze	Factual & Conceptual

Programme Outcome (PO)											
CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3		2						2		2
CO2	3		2						2		2
CO3	3		2						2		2
CO4	3		2						2		2
CO5	3		3	2		2			2		3
PO Target	3		2.2	2		2			2		2.2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Garima Kapoor		Dr. Lalit Mohan Nainwal	

Signature of Course Coordinator

 Signature of Addl. HoD

 Signature of HoD


Assoc./ Asst-Head DOC

Please Note (Reference: OBE Guidelines w
 ❖ The theory courses/ project having credits 3 to 5 should have 6 to 10 number of COs.
 ❖ The statement of a CO must be formed consid
 ❖ The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Conclusion and Criteria.

KIET Group of Institutions, Delhi – NCR, Gaziabad

Program Name: B. Pharm.

Course Name: Pharmacology-III

Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Course Code: BP602T

Year: III

Semester: VI

Course Coordinator Name: Dr. Shardendu Kumar Mishra

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Acquire the knowledge of pharmacotherapy of respiratory and GIT diseases.	1,2,4,6,7,8,9,10,11	Apply	Conceptual & Procedural
CO2	Analyze the utility of antimicrobial agents used for curing infections.	1,2,4,6,7,8,9,10,11	Analyze	Conceptual & Procedural
CO3	Illustrate the various mechanisms by which chemotherapeutic agents act and their applications in infection management.	1,2,4,6,7,8,9,10,11	Analyze	Conceptual & Procedural
CO4	Express the pharmacological profiles of anti-microbial agents and immunomodulators.	1,2,4,6,7,8,9,10,11	Apply	Conceptual & Procedural
CO5	Infer the principles of toxicology and chronopharmacology.	1,2,3,4,6,7,8,9,10,11	Analyze	Conceptual & Procedural

Programme Outcome (PO)											
CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2		2		2	1	1	3	2	3
CO2	3	2		2		2	1	1	3	2	3
CO3	3	2		2		2	1	1	3	2	3
CO4	3	2		2		2	1	1	3	2	3
CO5	3	2	2	2		2	1	1	3	2	3
PO Target	3	2	2	2		2	1	1	3	2	3

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Shardendu K Mishra		Dr. Abhishek Kumar	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addtl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm.

Course Name: Pharmacology-III

Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Course Code: BP602T

Year: III

Semester: VI

Course Coordinator Name: Dr. Shardendu Kumar Mishra

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Acquire the knowledge of pharmacotherapy of respiratory and GIT diseases.	1,2,4,6,7,8,9,10,11	Apply	Conceptual & Procedural
CO2	Analyze the utility of antimicrobial agents used for curing infections.	1,2,4,6,7,8,9,10,11	Analyze	Conceptual & Procedural
CO3	Illustrate the various mechanisms by which chemotherapeutic agents act and their applications in infection management.	1,2,4,6,7,8,9,10,11	Analyze	Conceptual & Procedural
CO4	Express the pharmacological profiles of anti-microbial agents and immunomodulators.	1,2,4,6,7,8,9,10,11	Apply	Conceptual & Procedural
CO5	Infer the principles of toxicology and chronopharmacology.	1,2,3,4,6,7,8,9,10,11	Analyze	Conceptual & Procedural

Programme Outcome (PO)										
CO No.	1	2	3	4	5	6	7	8	9	10
CO1	3	2		2		2	1	1	3	2
CO2	3	2		2		2	1	1	3	2
CO3	3	2		2		2	1	1	3	2
CO4	3	2		2		2	1	1	3	2
CO5	3	2	2	2		2	1	1	3	2
PO Target	3	2	2	2		2	1	1	3	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Shardendu K Mishra		Dr. Abhishek Kumar	

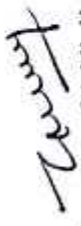
Signature of Course Coordinator



Assoc./ Asst. Head DOC



Signature of Addl. HoD



Signature of HoD



Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Gurgaon

Program Name: B. Pharm

Course Name: Herbal Drug Technology – Theory

Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Course Code: BP603T

Year: III

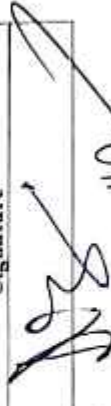
Semester: VI

Course Coordinator Name: Mr. Balwan Singh

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the Indian system of medicines and fundamentals of traditional herbal raw materials from its cultivation to collection with the help of biodynamic agriculture.	1,9,10,11	Understand	Factual, Conceptual
CO2	Explore the demand and need of nutraceuticals in various diseases and their interaction behavior.	1,6, 9,10,11	Analyze	Factual, Conceptual
CO3	Investigate various herbal excipients used in cosmetic formulations.	1,3, 4, 10,11	Analyze	Conceptual, Procedural
CO4	Apply the National and International regulatory guidelines for the assessment of herbal drugs and patenting.	1, 6,7, 8,9,10,11	Apply	Factual, Conceptual
CO5	Explore the Current Good Manufacturing Practices(cGMP) in herbal drug industry.	1,2, 3, 6,7,10,11	Analyze	Factual, Conceptual

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3								2	3	2
CO2	3					2			2	3	2
CO3	3		3	3						3	2
CO4	3					2	2	3	2	3	2
CO5	3	2	3			2	2		2	3	2
PO Target	3	2	3	3		2	2	3	2	3	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Mr. Balwan Singh		Dr. Daksh Bhatia	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2023 – 24)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm

Course Name: Biopharmaceutics & Pharmacokinetics

KIET School of Pharmacy

Academic Session: Even 2023-24

Year: III

Semester: VI

Course Code: BP604T

Course Coordinator Name: Dr. Ashu Mittal

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Illustrate the mechanisms and factors of drug absorption and drug distribution.	4	Apply	Factual and Conceptual
CO2	Analyze the processes of drug elimination, bioavailability and bioequivalence.	1, 3, 7, 8, 2	Analyze	Conceptual and procedural
CO3	Appraise the principles of pharmacokinetics in the context of various compartment models, non-compartment models, and physiological models, with a specific emphasis on the one-compartment open model.	1, 3, 4, 6, 9, 11	Evaluate	Conceptual and procedural
CO4	Analyze the principles of pharmacokinetics to comprehend concepts related to multicompartment models.	1, 3, 4, 6, 9, 11	Analyze	Conceptual and procedural
CO5	Demonstrate a comprehensive understanding of nonlinear pharmacokinetics.	1, 3, 4, 6, 9, 11	Apply	Conceptual and procedural

Programme Outcome (PO)

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	---	---	---	---	---	---	---	---	---	---
CO2	3	---	2	---	---	---	2	---	---	---	---
CO3	3	---	2	2	---	2	---	---	2	---	2
CO4	3	---	2	2	---	2	---	---	2	---	2
CO5	3	---	2	2	---	2	---	---	2	---	2
PO Target	3	---	2	2	---	2	2	2	2	---	2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Prof. (Dr.) Ashu Mittal		Mr. Sanjeev Chauhan	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines w/ Session 2021 – 22)

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- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm.

Course Name: Pharmaceutical Biotechnology
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP605T

Year: III Semester: VI
Course Coordinator Name: Dr. Monika Kaurav

After completion of the course, the student will be able to				
CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Explain significance of biotechnology in pharmaceutical products development.	1,9,10,11	Understand	Factual and Conceptual
CO2	Analyze the recombinant DNA technology and its application in pharmaceuticals production.	1,4,6,7,10	Analyze	Conceptual and Procedural
CO3	Demonstrate immunity and various immunological products and their production methods.	1,3,4,6,7,10	Apply	Conceptual and Procedural
CO4	Analyze various immune assay techniques for determination of immunological products.	1,3,4,6,7,10	Analyze	Conceptual and Procedural
CO5	Apply different fermentation techniques in production of various fermentation products.	1,3,4,6,7,10	Apply	Conceptual and Procedural

Programme Outcome (PO)										
CO No.	1	2	3	4	5	6	7	8	9	10
CO1	3			2					2	2
CO2	3			2		2	2			3
CO3	3		2	1		2	2		2	2
CO4	3		2	1		2	2		2	2
CO5	3		2	1		2	2		2	2
PO Target	3	2	2	1.4		2	2		2	2.2

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Monika Kaurav		Mr. Debaprasad Ghosh	



Signature of Course Coordinator

Please Note (Reference: OBE Guidelines w.e.f. Session 2021 – 22)

- The theory courses/project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.



Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Quality Assurance
Course Outcomes

KIET School of Pharmacy
Academic Session: Even 2023-24
Course Code: BP606T

Year: III
Semester: VI
Course Coordinator Name: Dr. Lakshmi

After completion of the course, the student will be able to				
CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand major guidelines and principles related to Quality Assurance and Quality Management.	1,2,4,5,6,7,8,9,10,11	Understand	Factual, Conceptual, Procedural
CO2	Acquire knowledge of GMP guidelines in the pharmaceutical industry.	1,2,3,5,6,7,8,9,10,11	Apply	Factual, Conceptual, Procedural
CO3	Select procedures for quality control of packing materials and GLP guidelines	1,2,3,5,6,7,8,9,10,11	Evaluate	Factual, Conceptual, Procedural
CO4	Analyze various documents relevant to the pharmaceutical industry.	1,2,3,5,6,7,8,9,10,11	Analyze	Factual, Conceptual, Procedural
CO5	Apply general principles of analytical method Validation, calibration, and qualification of commonly used equipment	1,2,3,4,5,6,7,8,9,10,11	Apply	Factual, Conceptual, Procedural

Programme Outcome (PO)											
CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	2		2	1	1	3	1	2	1	2
CO2	3	2	1		1	1	3	2	2	2	2
CO3	3	2	1		1	1	3	1	2	1	1
CO4	3	2	2		1	1	3	1	2	1	1
CO5	3	2	1	2	1	1	3	1	2	1	1
PO Target	3.00	2.00	1.25	2	1.00	1.00	3.00	1.20	2.00	1.20	1.40

Faculty Members Teaching the Course		Faculty Members Teaching the Course	
Signature	Signature	Signature	Signature
Dr. Lakshmi	<i>Lakshmi</i>	Dr. Snigdha	<i>Snigdha</i>

Signature of Course Coordinator *Lakshmi* **Assoc./ Asst. Head DOC** *Rishu*
Signature of HoD *Lakshmi* **Signature of Addl. HoD** *Snigdha*

- Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)**
- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
 - The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

❖ The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm

Course Name: Medicinal Chemistry -III Practical
Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24
Course Code: BP607P

Year: III

Semester: VI
Course Coordinator Name: Dr. Lalit Mohan Nainwal

After completion of the course, the student will be able to				
CO No.	Statement of Course Outcome			Relevant POs
CO1	Prepare intermediate compounds and drugs of medicinal importance			1, 2, 3, 4, 7, 8, 10, 11
CO2	Analyze and determine the purity of drug present in the bulk and dosage forms.			Create
CO3	Determine the physicochemical and druglike properties of drugs using drug design softwares (ChemDraw).			Analyze
				Evaluate
				Conceptual, Procedural
				Conceptual, Procedural
				Conceptual, Procedural

Programme Outcome (PO)										
CO No.	1	2	3	4	5	6	7	8	9	10
CO1	3	2	3	2	-	2	3	2	-	3
CO2	3	2	3	2	-	-	3	3	-	3
CO3	3	3	3	3	-	2	2	2	3	-
PO Target	3	2.33	3	2.33	-	2	2.66	2.33	3	2.33

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Dr. Lalit Mohan Nainwal	<i>[Signature]</i>	Dr. Garima Kapoor	<i>[Signature]</i>

[Signature]

Signature of Course Coordinator

[Signature]

Assoc./ Asst. Head DOC

[Signature]

Signature of Addtl. HoD

[Signature]

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Project having

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm
Course Name: Pharmacology-III Practical
Course Outcomes

KIET School of Pharmacy
Academic Session: Even 2023-24
Course Code: BP608P

Year: III Semester: VI
Course Coordinator Name: Dr. Abhishek Kumar

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant Pos	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Understand the methods for dose calculation for experimental animals.	1,2,3,7,8,10,11	Understand	Conceptual & Procedural
CO2	Demonstrate the knowledge of experiment design and bioassay process by experimental pharmacology on living tissue and simulation software.	1,2,3,4,7,8,10,11	Apply	Conceptual & Procedural
CO3	Demonstrate the method of biochemical, pharmacokinetic, toxicity studies and biostatistical analysis.	1,2,3,4,7,8,10,11	Apply	Conceptual & Procedural

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3	1	1	1							
CO2	3	1	1	2			2	1			
CO3	3	1	1	2			2	1			
PO Target	3.00	1.00	1.00	2.00			2.00	1.00		1.00	3.00
Faculty Members Teaching the Course	Signature										
Dr. Abhishek Kumar	Signature										
	Dr. Shardendu Kumar Mishra										

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Please Note (Reference: OBE Guidelines)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs.
- The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs.

Program Name: B. Pharm

Course Name: Herbal Drug Technology- Practical
Course Outcomes

Department of Pharmacy

Academic Session: 2023-24

Year: I

Semester: I

Course Code: BP609P

Course Coordinator Name: Dr Daksh Bhatia

After completion of the course, the student will be able to

CONo.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Analyze the phytochemical composition of crude drugs using various chemical tests	PO-1,2,3,4,11	Analyze	Factual, Procedural
CO2	Evaluate the marketed ayurvedic / herbal formulations on various parameters given in pharmacopoeia	PO-1,2,3,4,11	Evaluate	Factual, Procedural
CO3	Apply the knowledge of herbs and excipients to develop and evaluate the herbal formulations	PO-1,2,3,10,11	Apply	Factual, Procedural
CO4	perform the analysis and evaluation of crude drugs on the basis of pharmacopoeial standards	PO-1,2,3,4,11	Apply	Factual, Procedural

CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	2	2								2	NA	NA
CO2	3	2	2	3							2	NA	NA
CO3	3	2	2							2	2	NA	NA
CO4	3	2	2	3							2	NA	NA
POTarget	3	2	2	3						2	2	NA	NA

Faculty Members Teaching the Course		Signature
1. Dr Daksh Bhatia		
2.		

Signature of Course Coordinator

Lily

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 - 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The maximum number of COs for a course should not exceed 12. The maximum number of COs for a course should not exceed 12. The maximum number of COs for a course should not exceed 12.

Department of Pharmacy

Semester: VI

Year: 3RD

Academic Session: 2023-24

Course Code: BP610P

Program Name: B. Pharm

Course Name: Industrial Training

Course Coordinator Name: Ms Vidhu Saxena

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CONo.	Statement of Course Outcome			
CO1	Understand how an Industry or an approved research laboratory function and their sections and departments..	PO-1,2,3,4,5,6,7,8,11	Understand	Factual, Conceptual
CO2	outline the different roles and responsibilities inside an industry or an approved research laboratory..	PO-1,2,3,4,5,6,7,8,9,11	Analyze	Factual, Conceptual
CO3	handle different equipments that are being used inside an industry or an approved research laboratory..	PO-1,2,3,4,5,6,11	Create	Factual, Conceptual
CO4	understand the approvals, rules and regulations related with an industry or an approved research laboratory..	PO-1,2,3,4,5,6,7,8,9,10,11	Understand	Factual, Conceptual
CO5	acquire knowledge about professionalism, methods of official communications inside an organization and its responsibilities towards the environment and the society.	PO-1,2,3,4,5,6,7,8,9,10,11	Apply	Factual, Conceptual



Department of Pharmacy

Academic Session: 2023-24

Semester: VI

Program Name: B. Pharm

Course Name: Industrial Training

Course Coordinator Name: Ms Vidhu Saxena

CO-PO Matrix

Course Code: BP610P

CO No.	Programme Outcome(PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11		1	2
CO1	3	3	3	3	2	1	1	1			2	NA	NA	NA
CO2	3	3	3	1	2	2	2	1	1		2	NA	NA	NA
CO3	3	2	2	3	1	1					2	NA	NA	NA
CO4	3	2	2	1	1	1	2	1	1	2	2	NA	NA	NA
CO5	1	2	2	1	3	2	1	2	2	2	2	NA	NA	NA
PO Target	2.60	2.40	2.40	1.80	1.80	1.40	1.50	1.25	1.33	2	2	NA	NA	NA

Faculty Members Teaching the Course		Signature
1. Ms Vidhu Saxena		
2.		

[Signature]

Signature of Course Coordinator

[Signature]

Assoc./ Asst. Head DOC

[Signature]

Signature of Addl. HoD

[Signature]

Signature of HoD

Program Name: B. Pharm

Course Name: Biostatistics And Research Methodology

Course Coordinator Name: Dr Richa Aggarwal

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Interpret the basic concepts of biostatistics and general research methodology	PO-1,2,3,4,8,9	Evaluate	Factual, Conceptual
CO2	Explain the appropriate statistical methods required for a particular research design	PO-1,2,3,4,8,9	Understand	Factual, Conceptual
CO3	Adapt the appropriate research design and develop appropriate research hypothesis for a research project	PO-1,2,3,4,6,7,8,9,10	Apply	Factual, Conceptual
CO4	Evaluate the methods while working on a research project work	PO-1,2,3,4,5,8,9,11	Evaluate	Factual, Conceptual
CO5	Explain the various types of research design and create an appropriate framework for research studies	PO-1,3,4,9	Understand	Factual, Conceptual

CO-PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	1	1	3	1				1	1			NA	NA
CO2	1	2	3	2				1	1			NA	NA
CO3	1	2	3	2		1	1	1	2	1		NA	NA
CO4	1	1	3	3	2			1	1		1	NA	NA
CO5	1		3	3					1			NA	NA
PO Target	1	1.50	3	2.20	2	1	1	1	1.20	1	1	NA	NA

Faculty Members Teaching the Course	Signature
1. Dr Richa Aggarwal	Richa Aggarwal
2.	

Richa Aggarwal
Signature of Course Coordinator

Richa
Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

KIET Group of Institutions, Delhi – NCR, Ghaziabad

Program Name: B. Pharm

Course Name: Social and Preventive Pharmacy

Course Outcomes

KIET School of Pharmacy

Academic Session: Even 2023-24

Year: IV

Course Code: BP802T

Semester: VIII

Course Coordinator Name: Ms. Sheena Mehta

After completion of the course, the student will be able to

CO No.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Examine the various concepts of health and diseases with reference to public health	1, 3, 6, 7, 8, 9, 11	Apply	Factual & Conceptual
CO2	Acquire the knowledge of general principles for prevention and control of various diseases in light of social and preventive medicine	1, 3, 6, 7, 8, 9, 11	Apply	Factual & Conceptual
CO3	Outline the important attributes of various National Health Programmes in context with its objectives, functions and outcomes	1, 3, 6, 7, 8, 9, 11	Analyze	Factual & Conceptual
CO4	Explore various National Health Programmes and role of WHO in Indian health program in context with public health	1, 3, 6, 7, 8, 9, 11	Analyze	Factual & Conceptual
CO5	Determine the role of community services in rural, urban and school health	1, 3, 6, 7, 8, 9, 11	Apply	Conceptual

CO No.	Programme Outcome (PO)										
	1	2	3	4	5	6	7	8	9	10	11
CO1	3	-	3	-	-	3	3	3	3	-	3
CO2	3	-	3	-	-	3	3	3	3	-	3
CO3	3	-	3	-	-	3	3	3	3	-	3
CO4	3	-	3	-	-	3	3	3	3	-	3
CO5	3	-	3	-	-	3	3	3	3	-	3
PO Target	3.00		3.00			3.00	3.00	3.00	3.00		3.00

Faculty Members Teaching the Course	Signature	Faculty Members Teaching the Course	Signature
Ms. Vidhu Saxena		Ms. Sheena Mehta	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines wef. Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

KIET Group of Institutions, Delhi – NCR, Ghaziabad

KIET School of Pharmacy

Year: IV Semester: VIII
Course Coordinator Name: Ms. Shikha Kaushik

Academic Session: Even 2023-2024

Course Code: BP803ET

Program Name: B. Pharm

Course Name: Pharmaceutical Marketing Management

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Analyze the basic concepts of marketing and their application in pharmaceutical marketing.	1,2,3,5,6,7,8,9,11	Analyze	Conceptual
CO2	Explore product management in the pharmaceutical industry.	1,2,4,5,6,7,8,9,10,11	Apply	Conceptual
CO3	Assess various promotional techniques for pharmaceutical products.	1,2,3,4,5,6,7,8,9,11	Evaluate	Conceptual
CO4	Acquire knowledge about various pharmaceutical marketing channels.	1,2,3,5,7,8,9,10,11	Apply	Conceptual
CO5	Ascertain the objectives and importance of price management in the pharmaceutical industry.	1,3,4,6,7,8,9,11	Apply	Conceptual

Programme Outcome (PO)

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	2	3	3	-	3	3	3	2	2	-	2
CO2	3	3	2	-	3	3	3	3	2	-	3
CO3	2	3	3	-	1	3	3	3	2	-	3
CO4	2	3	3	-	3	2	3	3	2	-	3
CO5	3	2	3	-	2	3	3	3	2	-	3
PO Target	2.40	2.80	2.80	-	2.40	2.80	3.00	2.80	2.00	-	2.80

Faculty Members Teaching the Course		Faculty Members Teaching the Course	
Signature	Signature	Signature	Signature
Ms. Shikha Kaushik	Ms. Vidha Saxena		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Please Note (Reference: OBE Guidelines w.e.f. Session 2021-22)

- The theory courses' project having credits 3 to 6 should have 5 number of COs. The laboratory course/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.

Department of Pharmacy

Program Name: B. Pharm
Course Name: Computer Aided Drug Design

Semester: VIIIth
Year: IVth
Course Coordinator Name: Dr. Garima Kapoor

Academic Session: 2023-24

Course Code: BP807ET

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Describe the basic concepts of CADD and rational approaches to drug design.	1,2,3,4,6,8,9,10,11	Understand	Factual/ Conceptual
CO2	Understand the concept of QSAR, descriptors and various approaches.	1,3,4,5,6,7,8,9,10,11	Understand	Conceptual
CO3	Acquire knowledge of virtual screening techniques and molecular docking.	4,11	Apply	Conceptual
CO4	Explore about bioinformatics and cheminformatics in pharmaceutical drug discovery	1,3,4,5,6,11	Apply	Conceptual
CO5	Explore objectives and importance of molecular mechanics and quantum mechanics in drug discovery.	1,3,4,11	Apply	Conceptual

Department of Pharmacy

Program Name: B. Pharm

Course Name: Computer Aided Drug Design

Academic Session: 2023-24

Course Code: BP807ET

Year: IVth

Semester: VIIIth

Course Coordinator Name: Dr. Garima Kapoor

CO - PO Matrix

CO No.	Programme Outcome (PO)											PSO/ APO		
	1	2	3	4	5	6	7	8	9	10	11		1	2
CO1	3	3	3	2	-	3	-	2	3	3	3	NA	NA	NA
CO2	2	-	2	3	3	3	2	3	3	3	2	NA	NA	NA
CO3	-	-	-	3	-	-	-	-	-	-	3	NA	NA	NA
CO4	2	-	3	2	3	2	-	-	-	-	3	NA	NA	NA
CO5	3	-	3	3	-	-	-	-	-	-	3	NA	NA	NA
PO Target	2.50	3	2.75	2.60	3	2.67	2	2.5	3	3	2.80	NA	NA	NA

Faculty Members Teaching the Course		Signature
1.		Dr. Garima Kapoor
2.		

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Program Name: B. Pharm.
Course Name: Cosmetic Science

KIET School of Pharmacy
Academic Session: Even 2023-24
Course Code: BP809ET

Year: IV
Semester: VIII
Course Coordinator Name: Dr. Monika Kaurav

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Illustrate the structures of skin, hair, and oral cavity with associated problems and the classification & applications of the cosmetic product with different excipients used to manufacturing of cosmetic products	1,3,5,6,7,9,11	Apply	Factual and Conceptual
CO2	Explain the skincare products, antiperspirants and deodorants, and hair care products.	1,3,5,6,7,9,11	Apply	Factual Conceptual, and Procedural
CO3	Demonstrate the role of herbs in cosmetics, analytical cosmetics.	1,3,7,9,10,11	Apply	Factual Conceptual, and Procedural
CO4	Analyze the principles of cosmetic evaluation.	1,3,4,5,6,7,10,11	Analyze	Factual Conceptual, and Procedural
CO5	Determine the cosmetic problems associated with Hair and scalp and skin.	1,3,5,7,9,10,11	Apply	Factual Conceptual, and Procedural

Programme Outcome (PO)

CO No.	1	2	3	4	5	6	7	8	9	10	11
CO1	3		3		3	2	2		2		2
CO2	3		2		2	2	2		1	1	1
CO3	3		2			2	2			2	2
CO4	3		2		2		2		2	1	2
CO5	3		2		2		2			1.33	1.8
PO Target	3		2.2		2.33	2	2		1.5	1.33	1.8

Faculty Members Teaching the Course		Signature	Signature
Dr. Monika Kaurav			
Faculty Members Teaching the Course		Mr. Anuraj Patrak	

Signature of HoD

Assoc./ Asst. Head DOC

Signature of Course Coordinator

Please Note (Reference: OBE Guidelines wcf, Session 2021 – 22)

- The theory courses/ project having credits 3 to 6 should have 5 number of COs. The laboratory courses/ mini project/ seminar/ industrial training having credits less than 3 should have 3 number of COs. The Project having 7 to 12 credits should have 6 to 10 number of COs.
- The statement of a CO must be formed considering a proper structure having mandatory and optional parts. The mandatory parts are Action & Knowledge and optional parts are Condition and Criteria.
- The Project having 7 to 12 credits should have 3 number of COs. The Project having 13 to 18 credits should have 4 to 6 number of COs. The Project having 19 to 24 credits should have 7 to 10 number of COs.

Department of Pharmacy

Program Name: B. Pharm
Course Name: Report on Elective Project
Academic Session: 2023-24
Year: IV
Semester: VIII
Course Code: BP814PW
Course Coordinator Name: Mr. Debaprasad Ghosh

Course Outcomes

After completion of the course, the student will be able to		Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO No.	Statement of Course Outcome			
CO1	Understand the rationale behind performing project work in a specific elected area of pharmacy.	PO- 1,2,3,6,7,9,11	Understand	Conceptual & Procedural
CO2	Acquire expertise in data mining, literature reviewing, and processing for a particular research area of pharmacy.	PO- 1,2,3,6,7,9,11	Apply	Conceptual & Procedural
CO3	Analyze the implementation of available knowledge and technology to cater the needs under consideration.	PO-1,2,3,4,6,7,9,11	Analyze	Conceptual & Procedural
CO4	Evaluate the potential role of new findings and their conversion into suitable solutions for the current pharmaceutical challenges.	PO-1,2,3,4,6,7,9,11	Evaluate	Conceptual & Procedural
CO5	Develop novel theories, ideas, products, analytical methods, procedures, and techniques in a specific elected area in pharmacy.	PO-1,2,3,4,6,7,9,11	Create	Conceptual & Procedural

Faculty Members Teaching the Course	
1. Mr. Debaprasad Ghosh	Signature

[Signature]
Signature of Course Coordinator

[Signature]
Assoc./ Asst. Head DOC

[Signature]
Signature of Addl. HoD

[Signature]
Signature of HoD

Department of Pharmacy
Academic Session: 2023-24
Course Code: BP814PW

Semester: VIII
Year: IV
Course Coordinator Name: Mr. Debaprasad Ghosh

Program Name: B. Pharm
Course Name: Report on Elective Project

CO - PO Matrix	Programme Outcome (PO)											PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	11	1	2
CO1	3	1	2	-	-	1	1	-	1	-	2	NA	NA
CO2	3	1	2	-	-	1	1	-	1	-	2	NA	NA
CO3	3	2	2	3	-	1	1	-	2	-	2	NA	NA
CO4	3	2	2	1	-	1	1	-	2	-	2	NA	NA
CO5	3	1	2	2	-	1	1	-	2	-	2	NA	NA
PO Target	3	1.4	2	2	-	1	1	-	1.4	-	2	NA	NA

Faculty Members Teaching the Course	Signature
1. Mr. Debaprasad Ghosh	

Signature of Course Coordinator

Assoc./ Asst. Head DOC

Signature of Addl. HoD

Signature of HoD

Program Name: B. Pharm

Course Name: Report on Industrial Tour

Course Coordinator Name: Ms Vidhu Saxena

Course Outcomes

After completion of the course, the student will be able to

CONo.	Statement of Course Outcome	Relevant POs	Revised Bloom's Level (BL)	Knowledge Category (KC)
CO1	Identify the layout of a pharmaceutical industry and the various sections and departments	PO-1,2,3,7,11	Analyze	Factual, Conceptual
CO2	Understand how a pharmaceutical industry operates and the different roles and responsibilities of various personnel involved.	PO-1,2,3,4,5,6,7,8,11	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.	PO-1,2,3,4,6,11	Apply	Factual, Conceptual
CO4	Analyze the various approval procedures, rules and regulations required to be followed inside a pharmaceutical industry.	PO-1,2,3,5,6,7,8,9,10,11	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.	PO-1,2,3,4,6,7,11	Apply	Factual, Conceptual



Program Name: B. Pharm
CourseName: Report on Industrial Tour
Course Coordinator Name: Ms Vidhu Saxena
CO-PO Matrix

Department of Pharmacy
Academic Session: 2023-24
CourseCode: BP815P

Year: 4th

Semester: VIII

CO No.	Programme Outcome (PO)										PSO/ APO	
	1	2	3	4	5	6	7	8	9	10	I	II
CO1	3	2	1				1				NA	2
CO2	3	2	2	2	1	1	2	1			NA	NA
CO3	3	2	2	3		1					NA	NA
CO4	3	2	2		1	1	2	1	1	2	NA	NA
CO5	3	2	1	2		1	1				NA	NA
POTarget	3	2	1.60	2.33	1	1	1.50	1	1	2	NA	NA

Faculty Members Teaching the Course	
1. Ms Vidhu Saxena	Signature
2.	


Signature of Course Coordinator


Assoc./ Asst. Head DOC


Signature of Addl. HoD


Signature of HoD