



# INNOVATIVE COLLEGE OF PHARMACY

(Affiliated to Dr. APJAKTU, BTEUP - Lucknow  
and Approved by PCI, New Delhi)

## Faculty Development Program

### PHARMACEUTICAL EDUCATION AND RESEARCH

**ELIGIBILITY:**  
All Pharmacy Faculty Members

**DURATION :**  
13th May 2024 to 18th May 2024



**Principal:**  
Dr. Amarjeet Singh  
Pharmacy

**Coordinator:**  
Dr. Titiksha Sharma  
Academic Director

Plot No.-6, Knowledge Park-2, Greater Noida, U.P.  
844 844 8851, 8800200052 | [www.innovativepharmacy.in](http://www.innovativepharmacy.in)



# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PCI

Date: 08 May 2024

## Circular

All the faculty members are hereby informed that the institute has scheduled six days FDP on "Pharmaceutical Education and Research" from 13<sup>th</sup> May 2024 to 18<sup>th</sup> May 2024

The brief date wise Itinerary of the event is as under:

Day	Date	Time	Topic	Resource Person
1	13/05/2024	12PM-1PM 1PM-3PM	Inauguration Innovative Teaching Methods in Pharmaceutical Education	Dr. J. K. Tripathi
2	14/05/2024	2 PM to 3:30 PM	Current Trends in Pharmaceutical Research	Dr. Ramakant Gupta
3	15/05/2024	2 PM to 3:30 PM	Quality Assurance and Regulatory Compliance in Pharmaceutical Education	Dr. Ravi Kant
4	16/05/2024	2 PM to 3:30 PM	Interdisciplinary Approaches to Pharmaceutical Education and Research	Dr. Zeenat Iqbal
5	17/05/2024	2 PM to 3:30 PM	Res Career Development in Pharmaceutical Sciences	Dr. Manjusha
6	18/05/2024	2 PM to 3:30 PM	Emerging Issues and Challenges in Pharmaceutical Education	Dr. Pankaj Sharma

All the faculty members are requested to attend the sessions. The faculty members having their scheduled lectures during the time of the FDP may attend the session after their lectures.

On the completion of the event, the proper certificate shall be conferred to the

Plot No. - 6, Knowledge Park - 2, Greater Noida, U. P. - 201308. (Near Knowledge Park 2 Metro Station)  
Ph: 0120-2328555 | Website - [www.innovativepharmacy.in](http://www.innovativepharmacy.in) | E-mail: [innovativepharmacy@gmail.com](mailto:innovativepharmacy@gmail.com)





# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PCI

participants who have attended all the sessions. It is further to be noted that every day there will be short multiple-question tests to ascertain what you have understood during the session.

All are requested to comply with the instructions.

**Copy to:-**  
**Chairman**  
**All Department Heads**  
**IQAC**





**Report on Faculty Development Program**  
**Organized by**  
**INNOVATIVE COLLEGE OF PHARMACY**  
**on**  
**Pharmaceutical Education and Research**  
**(Period- 13th May 20224 to 18th May 20224)**

## INTRODUCTION

Introducing Pharmaceutical Education and Research for a Faculty Development Program (FDP) involves setting the stage for understanding the critical aspects, challenges, and advancements in this dynamic field. Here's how you might structure an introduction.

The six-day Faculty Development Program (FDP) on Pharmaceutical Education and Research. Pharmaceutical education encompasses the training and preparation of students in various disciplines related to drug discovery, development, manufacturing, regulation, and distribution.

## PURPOSE

Pharmaceutical education and research serve crucial roles in advancing scientific knowledge, preparing skilled professionals, improving healthcare outcomes, driving economic growth, and upholding ethical standards. They contribute to







# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PCI

developing new drugs, enhancing treatment effectiveness, fostering innovation, and ensuring regulatory compliance, ultimately benefiting public health and supporting economic development.

## PROGRAM OVERVIEW

The Pharmaceutical Education and Research program provides comprehensive training in key areas such as pharmacology, drug discovery, and regulatory compliance. Participants gain advanced research skills and explore cutting-edge innovations like personalized medicine and biotechnology. Emphasizing interdisciplinary collaboration and ethical standards, the program prepares professionals for diverse roles in academia, industry, and regulatory affairs. It aims to foster career development, address global health challenges, and promote sustainable practices in pharmaceutical sciences, ensuring a meaningful impact on healthcare and industry innovation.





# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PCI

The day-wise FDP program is as under :

Day	Date	Time	Topic	Resource Person
1	13/05/2024	12PM-1PM 1PM-3PM	Inauguration <b>Innovative Teaching Methods in Pharmaceutical Education</b>	Dr. J. K. Tripathi
2	14/05/2024	2 PM to 3:30 PM	Current Trends in Pharmaceutical Research	Dr. Ramakant Gupta
3	15/05/2024	2 PM to 3:30 PM	Quality Assurance and Regulatory Compliance in Pharmaceutical Education	Dr. Ravi Kant
4	16/05/2024	2 PM to 3:30 PM	Interdisciplinary Approaches to Pharmaceutical Education and Research	Dr. Zeenat Iqbal
5	17/05/2024	2 PM to 3:30 PM	Career Development in Pharmaceutical Sciences	Dr. Manjusha
6	18/05/2024	2 PM to 3:30 PM	Emerging Issues and Challenges in Pharmaceutical Education	Dr. Pankaj Sharma





## DAY-WISE REPORT

A six-day Faculty Development Programme was organized in the institute from **13th May 20224 to 18th May 20224.**

The day-wise report in the brief is being encapsulated for the reference of all concerned.



**Session Topic: Innovative Teaching Methods in Pharmaceutical Education**

**Timing: 12 PM to 3 PM**

**Guest: Prof. Navin Mathur**

**Resource Person: Dr. J. K. Tripathi**

The first day of the Programme commenced with the **Formal welcome** of the Resource Person **Prof. Dr. J. K. Tripathi** and all participants by Principal **Dr. Amarjeet Singh**.

Prof. Tripathi, our esteemed resource person, provided valuable insights into the importance of ethical conduct in academia and emphasized the role of integrity in upholding the credibility of research and teaching. Innovative teaching methods in pharmaceutical education aim to enhance student engagement, improve learning outcomes, and ensure graduates are well-prepared for the evolving demands of the healthcare field.

Moreover, Prof. Tripathi discussed Active learning strategies, such as flipped classrooms, problem-based learning (PBL), and team-based learning (TBL), encourage students to engage deeply with the material and develop critical thinking skills. Simulation-based education, including virtual simulations, standardized







patients, and high-fidelity mannequins, allows students to practice clinical skills in a safe and controlled environment. Overall, Interprofessional education (IPE) fosters collaboration among students from various healthcare disciplines through joint case studies and collaborative learning experiences. Technology-enhanced learning, utilizing e-learning platforms, augmented reality (AR), virtual reality (VR), and mobile apps, provides flexible and immersive learning opportunities.



**Session Topic: Current Trends in Pharmaceutical Research**

**Timing: 2 PM to 3:30 PM**

**Resource Person: Dr. Ramakant Gupta**

Dr. Ramakant Gupta, our esteemed resource person address on Current trends in pharmaceutical research are driven by advancements in technology, a deeper understanding of disease mechanisms, and the urgent need for innovative therapies. One significant trend is the increasing focus on personalized medicine, which tailors treatments to individual genetic profiles, enhancing efficacy and minimizing side effects.

The development of biologic, including monoclonal antibodies, gene therapies, and cell therapies, is also expanding rapidly, offering new avenues for treating previously untreatable conditions. Additionally, artificial intelligence (AI) and machine learning are transforming drug discovery and development processes by enabling the analysis of vast datasets to identify potential drug candidates and predict outcomes more accurately.







Furthermore, Dr. Ramakant Gupta delved The exploration of novel drug delivery systems, such as nanoparticles and biodegradable polymers, aims to improve the targeted delivery and controlled release of medications. There is also a growing emphasis on developing treatments for rare diseases, supported by regulatory incentives and increasing investment in orphan drug research. Furthermore, the integration of real-world evidence and big data analytics into clinical research is enhancing our understanding of drug effectiveness and safety in diverse populations.

Throughout the session, Dr. Ramakant Gupta engaged participants in interactive discussions and provided practical examples to illustrate key concepts.

In conclusion, Dr. Ramakant Gupta's session on Issues in these trends reflect a dynamic and innovative landscape in pharmaceutical research, focused on addressing unmet medical needs and improving patient outcomes.



**Session Topic: Quality Assurance and Regulatory Compliance in Pharmaceutical Education**

**Timing:** 2 PM to 3:30 PM

**Resource Person:** Dr. Ravi Kant

In this enlightening session, Dr. Ravi Kant, our distinguished resource person, emphasized the critical role of reflection in the research process. Dr. Ravi Kant guided participants through an exploration of the importance of reflective practice in enhancing the quality and integrity of research endeavors.





The session commenced with an overview of the concept of Pharmaceutical education is critical in ensuring professionals are equipped with the knowledge and skills necessary for upholding quality and compliance in medication production and distribution. Quality Assurance (QA) involves systematic activities within a quality system to fulfill quality requirements, encompassing Quality Control (QC), Good Manufacturing Practice (GMP), and Standard Operating Procedures (SOPs).

Dr. Ravi Kant then delved into Regulatory Compliance ensures pharmaceutical products meet legal requirements set by bodies like the FDA, EMA, and WHO. Education focuses on principles of QA, QA systems and audits, risk management, regulatory requirements, regulatory submissions, and post-market surveillance. Integrating these into pharmaceutical curricula involves specific courses, practical training, case studies, and simulations, aiming to develop critical thinking, attention to detail, and communication skills.

Furthermore, Dr. Ravi Kant discussed the Assessments through exams and projects, along with continuous curriculum updates, prepare students for evolving regulatory landscapes. Addressing challenges such as keeping up with regulations, global harmonization, and technological advancements ensures that educational programs remain relevant and effective.

Throughout the session, Dr. Ravi Kant engaged participants in fostering comprehensive education in QA and regulatory compliance, institutions prepare professionals to maintain high standards of product quality and regulatory adherence, safeguarding public health.





**Day 4**  
**16/05/2024**

**Session Topic: Interdisciplinary Approaches to Pharmaceutical Education and Research**

**Timing: 2 PM to 3:30 PM**

**Resource Person: Dr. Zeenat Iqbal**

In this informative session, Dr. Zeenat Iqbal, our esteemed resource person, provided Interdisciplinary approaches to pharmaceutical education and research involve integrating knowledge and methodologies from various fields to enhance the development and delivery of pharmaceuticals. Prof. Jain guided participants through a This approach combines principles from chemistry, biology, engineering, medicine, and computer science to address complex challenges in drug discovery, development, and patient care.

The session commenced with an fostering collaboration between disciplines, educational programs can offer a more holistic understanding of the pharmaceutical landscape. For instance, incorporating bio informatics and data science can improve drug design and personalized medicine, while insights from engineering can optimize manufacturing processes.

Dr. Zeenat Iqbal then delved into Additionally, integrating public health and regulatory sciences ensures that new therapies are not only effective but also safe and compliant with legal standards. Interdisciplinary education promotes innovation and prepares students to work in diverse teams, driving advancements in pharmaceutical research and improving patient outcomes.

Furthermore, Dr. Zeenat Iqbal shared valuable tips and techniques for making graduates well-equipped to tackle future challenges in the pharmaceutical industry.

In conclusion, Dr. Zeenat Iqbal session on This holistic approach also encourages critical thinking, problem-solving, and the ability to adapt to rapidly changing







scientific and regulatory environments.



**Session Topic: Career Development in Pharmaceutical Sciences**

**Timing: 2 PM to 3:30 PM**

**Resource Person: Dr. Manjusha**

In this engaging session, Dr. Manjusha, our Career development in pharmaceutical sciences is a dynamic and multifaceted process that involves continuous learning, skill enhancement, and professional growth. Individuals pursuing careers in this field must stay abreast of advancements in drug discovery, development, and regulation.

The session commenced with an overview of the importance of Educational pathways typically start with undergraduate degrees in pharmacy, chemistry, or biology, followed by specialized graduate programs in pharmaceutical sciences.

Throughout the discussion, Dr. Manjusha facilitated conversations on a Professional development is furthered through postdoctoral research, industry internships, and certifications in areas such as regulatory affairs and clinical research. Networking through professional organizations and attending conferences is crucial for career advancement, providing opportunities for collaboration and knowledge exchange.

Furthermore, Dr. Manjusha provided guidance on mentoring relationships can offer guidance and support, helping individuals navigate their career paths.





Overall, the research discussion session led by Dr. Manjusha served as a Research career development in pharmaceutical sciences encompasses a comprehensive pathway that combines advanced education, interdisciplinary collaboration, and continuous professional growth. Beginning with rigorous academic training, aspiring researchers gain foundational knowledge in key areas such as medicinal chemistry, pharmacology, and biotechnology.

In conclusion, Dr. Manjusha the pharmaceutical industry evolves with technological innovations and changing regulatory landscapes, continuous professional development ensures that pharmaceutical scientists remain competent and competitive, contributing to the advancement of healthcare and the development of new therapies.



**Session Topic: Emerging Issues and Challenges in Pharmaceutical Education**

**Timing: 2 PM to 3:30 PM**

**Resource Person: Dr. Pankaj Sharma**

In this enlightening session, Dr. Pankaj Sharma our esteemed resource person, delved into the Emerging issues and challenges in pharmaceutical education are increasingly complex and multifaceted, driven by rapid advancements in science and technology, evolving regulatory landscapes, and the growing need for interdisciplinary approaches.

The session commenced with an overview of the One major challenge is keeping curricula up-to-date with the latest scientific discoveries and technological





# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PCI

innovations, such as personalized medicine, biotechnology, and artificial intelligence, which require new skill sets and knowledge bases.

Dr. Pankaj Sharma the globalization of the pharmaceutical industry necessitates an understanding of diverse regulatory requirements and standards, posing a challenge for educational programs to adequately prepare students for international practices.

Furthermore, Dr. Pankaj Sharma explored the pressing need to address the ethical and social implications of new pharmaceutical developments, ensuring that students are equipped to consider the broader impact of their work on society.

Throughout the session, Dr. Pankaj Sharma engaged participants in Limited funding and resources for educational institutions can hinder the implementation of comprehensive training programs and research opportunities. Lastly, fostering effective interdisciplinary collaboration within educational frameworks remains a challenge, as it requires breaking down traditional silos between departments and creating cohesive, integrated learning experiences.

In conclusion, Dr. Pankaj Sharma session on Addressing these emerging issues and challenges is crucial for preparing the next generation of pharmaceutical professionals to navigate and excel in an increasingly dynamic and globalized industry.







# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PC

## ATTENDANCE LIST OF THE PARTICIPANTS

S.No.	Name of the Faculty	Signature
1	Dr. Amarjeet Singh	
2	Ms. Sangeeta Singh	
3	Ms. Chanda ray	
4	Ms. Renu Tiwari	
5	Mr. Akash Johri	
6	Mr. Qumre Alam	
7	Ms. Sandhya Sharma	
8	Ms. Roshan Zehra	
9	Ms. Tabassum Malik	
10	Ms. Deepika Chauhan	
11	Ms. Nida Hafiz	
12	Ms Parul Sinha	
13	Ms. Saloni Manglik	
14	Ms. Neeti Anand	
15	Mr. Anand Malhawat	
16	Ms. Jaya Bhati	
17	Mr. Suraj Gupta	
18	Ms. Rupali Jha	
19	Mr. Almas Khan	
20	Ms. Ashwathy	
21	Mr. Bijender	
22	Ms. Neelima Kirti	





**Faculty Development Program**  
**Organized by**  
**INNOVATIVE COLLEGE OF PHARMACY**  
**on**  
**Pharmaceutical Education and Research**  
**(Period-13th May 20224 to 18th May 20224)**

## **FEEDBACK FORM**

Thank you for participating in our Faculty Development Program (FDP) on **Pharmaceutical Education and Research**. Your feedback is invaluable to us as we strive to continuously improve our programs. Please take a moment to share your thoughts by completing the following feedback form:

- 1. Session Relevance:**
  - How relevant were the topics covered to your role and responsibilities?
    - Very Relevant / Relevant / Somewhat Relevant / Not Relevant
- 2. Content Quality:**
  - Rate the overall quality of the content presented.
    - Excellent / Good / Average / Poor
- 3. Speaker Effectiveness:**
  - How effective were the speakers in delivering the sessions?
    - Very Effective / Effective / Neutral / Ineffective
- 4. Interactive Activities:**
  - Did the interactive activities (workshops, discussions) enhance your learning experience?
    - Strongly Agree / Agree / Neutral / Disagree / Strongly Disagree
- 5. Knowledge Acquisition:**





# INNOVATIVE COLLEGE OF PHARMACY

Affiliated To Dr. A.P.J. Abdul Kalam Technical University, Lucknow, U.P. & Approved By PCI

- To what extent did you acquire new knowledge or skills during the program?
  - Significantly / Moderately / Slightly / Not at all
- 6. **Program Organization:**
  - Rate the organization and logistics of the program.
    - Excellent / Good / Average / Poor
- 7. **Suggestions for Improvement:**
  - What aspects of the program could be improved?
- 8. **Overall Satisfaction:**
  - How satisfied are you with the overall program?
    - Very Satisfied / Satisfied / Neutral / Dissatisfied / Very Dissatisfied
- 9. **Additional Comments:**
  - Any additional comments or feedback you would like to provide.
- 10. **Do you have any suggestions for improving future FDPs on similar topics?**

Thank you for taking the time to provide your feedback. Your input will help us enhance future iterations of the FDP and better meet the needs of our teaching staff.

Sincerely,

[INNOVATIVE COLLEGE OF PHARMACY]







## Test Questions for all Day Sessions

**Result Analysis :** 90% of participants felt that the session was excellent and/or 10%. It was a very good session.

### Day 1 : Innovative Teaching Methods in Pharmaceutical Education

**Question 1 :** Do flipped classrooms promote active learning in pharmaceutical education?

- Yes
- No

**Question 2 :** Can case-based learning enhance problem-solving skills in pharmaceutical students?

- Yes
- No

### Day 2 : Current Trends in Pharmaceutical Research

**Question 1 :** Are pharmaceutical researchers increasingly focusing on biologics and biosimilars?

- Yes
- No

**Question 2 :** Is there a growing emphasis on precision medicine and personalized therapies in pharmaceutical research?





- Yes
- No

## Day 3 : Quality Assurance and Regulatory Compliance in Pharmaceutical

### Education

**Question 1 : Is quality assurance important for ensuring the consistency and effectiveness of pharmaceutical education programs?**

- Yes
- No

**Question 1 : Do pharmaceutical education programs need to comply with regulatory standards set by accreditation bodies?**

- Yes
- No

## Day 4 : Interdisciplinary Approaches to Pharmaceutical Education and

### Research

**Question 1 : Is there a benefit to integrating pharmacology and genetics into pharmaceutical education programs?**

- Yes
- No

**Question 2 : Can interdisciplinary research teams lead to innovative drug discovery and development?**

- Yes
- No





## Day 5 : Career Development in Pharmaceutical Sciences

**Question 1 : Does pursuing a PhD enhance career prospects in pharmaceutical sciences research?**

- Yes
- No

**Question 2 : Can publishing research articles in peer-reviewed journals advance a career in pharmaceutical sciences?**

- Yes
- No

## Day 6 : Emerging Issues and Challenges in Pharmaceutical Education

**Question 1 : Are pharmaceutical education programs facing challenges in adapting to rapid advancements in technology?**

- Yes
- No

**Question 2 : Is there an emerging need for integrating pharmacogenomics and personalized medicine into pharmaceutical curricula?**

- Yes
- No

