



Children's Education Society (Regd.)

# The Oxford College of Pharmacy

(Recognized by the Govt. of Karnataka, Affiliated to Rajiv Gandhi University of Health Science, Karnataka;

Approved by Pharmacy Council of India, New Delhi)

Accredited by NAAC and International Accreditation Organization (IAO)

Date: 20/09/2019

## CIRCULAR

This is to inform all the students and the teaching staff of The Oxford College of Pharmacy that a workshop titled “Design of Experiment” for the academic year 2019-20 will be conducted on 24/09/2019. We request active participation for the same.

*P. Padma*

PRINCIPAL

PRINCIPAL

The Oxford College of Pharmacy  
No 6/9, 1st Cross, Begur Road, Hongasandra  
Bangalore - 560 068

Chief Patron

SRI. S.N.V.L Narasimha Raju  
Chairman,

The Oxford Group of  
Institutions, Bangalore.

Convener

Dr. Padmaa M Paarakh  
Principal & Professor, TOCP

Co-ordinator

Mrs. Divya S Kumar  
Department of  
Pharmaceutics

Resource Person

Mr. Zaheer Abbas  
Senior Scientist  
Apotex Pharma Limited  
Bangalore

## ABOUT US

The Oxford College of  
Pharmacy (TOCP) was  
established in 1992. TOCP  
under the aegis of Children's  
Education Society (R) offers  
D Pharm, B Pharm, M Pharm,  
Pharm D, Pharm D Post  
Baccalaureate and PhD  
Programs.

TOCP is recognized by the  
Government of Karnataka,  
affiliated to Rajiv Gandhi  
University of Health Sciences,  
Karnataka, and Drug control  
Board, Karnataka  
respectively, approved by  
Pharmacy Council of India,  
New Delhi.

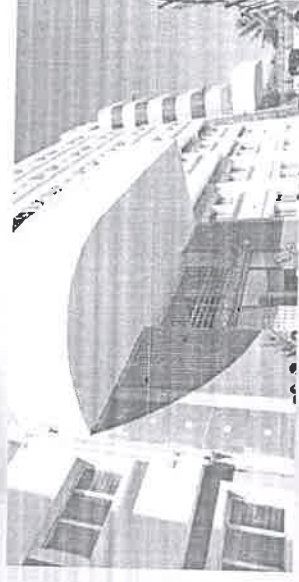
Workshop on

“Design of Experiment”

On

24th September 2019

Time: 9 AM-4 PM



Organized by

Department of Pharmaceutics

THE OXFORD COLLEGE OF

PHARMACY

No 6/9, 1st Cross, Begur Road,

Hongasandra, Bangalore

PIN 560 068

Karnataka, India.



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## DEPARTMENT OF PHARMACEUTICS

### ORGANISED

### WORKSHOP ON

### "DESIGN OF EXPERIMENT"

### CHIEF PATRON

SHRI S. N. V. L NARASIMHA RAJU

CHAIRMAN

THE OXFORD GROUP OF INSTITUTIONS

### CONVENER

Dr. PADMAA M PAARAKH

PRINCIPAL

THE OXFORD COLLEGE OF PHARMACY

### ORGANISING SECRETARY

MRS. DIVYA S KUMAR

ASSISTANT PROFESSOR

THE OXFORD COLLEGE OF PHARMACY

### RESOURCE PERSON

MR. ZAHEER ABBAS, SENIOR SCIENTIST,

APOTEX PHARMA. LTD., BANGALORE

**DATE:** 24<sup>th</sup> SEPTEMBER 2019

**TIME:** 09:00 AM – 4.00 PM



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## PREAMBLE

Quality by design (QbD) aims at constant high-quality products in different industries, such as pharmaceuticals, manufacturing, and product development that rely on strategic approaches. This means that companies think through the entire production cycle from conception up to completion.

In terms of pharmaceuticals, quality by design entails optimizing drug development, manufacture and control processes to enhance their safety, efficacy and overall quality. Under this approach, one should understand the critical process parameters (CPPs) concerning the drugs which are the variables controlling different aspects of the manufacturing process and its Critical Quality Attributes (CQAs) – performance defining measurable characteristics.

## CONTENT OF THE WORKSHOP

A workshop on Design of Experiments was held on 24<sup>th</sup> September, 2019. At 9.00 AM., registration of delegates for seminar started. Inaugural function started at 9.30 am and was anchored by Mrs. Divya S Kumar, Assistant Professor, The Oxford College of Pharmacy, Bangalore. In inaugural function, Dr. Padmaa M Paarakh, Principal, The Oxford College of Pharmacy, Bangalore, welcomed, Sri S. N. V. L. Narasimha Raju, President, and Children's Education Society(R) in his absence. She also welcomed Mr. Zaheer Abbas, Senior Scientist, Apotex Pharma. Ltd., Bangalore and Dr. C. Mallikarjuna Shetty, Prof.& HOD, The Oxford College of Pharmacy & Organizing Secretary of the workshop.

Over 40 delegates including teachers and students of The Oxford College of Pharmacy, Bangalore attended the workshop. Mr. Zaheer Abbas had given a presentation on "Optimization techniques in pharmaceutical research and development". A tea break followed after the inaugural session. Scientific session started after tea break. At 11:00 AM, Mr. Zaheer Abbas, Senior Scientist gave an over view of Quality by design. Design expert software, a QBD software was installed personally by all the details after instruction by Mr. Zaheer Abbas He explained all the features of the software and step by step usage of Design expert software by using some examples. At 12.30 pm., lunch break was given. In afternoon session, at 01.30 pm, all the participants used the QBD software as explained, clarified their doubts and showed the results to Mr. Zaheer Abbas. The session was ended by 3:30 PM Valedictory function



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e-mail: [pharmacyprincipal@theoxford.edu](mailto:pharmacyprincipal@theoxford.edu); [info@theoxford.edu](mailto:info@theoxford.edu);



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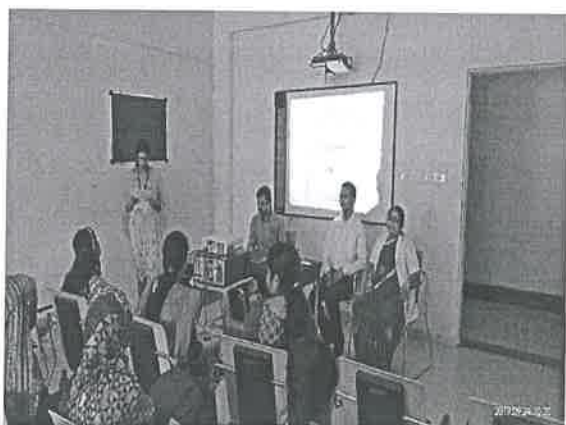
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commenced at 3:45 PM. Dr. Padmaa M Paarakh, Principal, The Oxford College of Pharmacy, Bangalore presided over the function. Mr. Zaheer Abbas was the Guest of Honor, Dr. C. Mallikarjuna Shetty, Professor and organizing secretary were present. Dr. Padmaa M Paarakh addressed the gathering and praised about the seminar and acknowledged the contributions and encouragement given by management of The Oxford Educational Institution. Certificates were distributed to all the participants and memento was given to the Mr. Zaheer Abbas, senior scientist. Dr. C. Mallikarjuna Shetty, Professor presented vote of thanks and conveyed his gratitude to all participants and Mr. Zaheer Abbas. Valedictory function was concluded at 4:15 PM.



**Inauguration of the workshop**



**Mr. Zaheer Abbas interacting with participants**



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**Certificates distribution to the participants**

## OUTCOME

There were 40 participants in the workshop. After attending the workshop, the participants were able to understand how to plan, conduct, analyze and interpret controlled tests to evaluate factor that control the value of the parameter. DOE is a powerful tool used in different experimental situations. Through this, the input parameters can be controlled and simultaneously helps in determining their effect on response or output. Additionally, the important interactions which are missed when using one factor at a time can be identified by DOE. Overall, the workshop had definitely aid the participants in conducting research using this wonderful modern tool.



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## LIST OF PARTICIPANTS

SL. NO	NAME OF PARTICIPANT	SIGNATURE
1.	ANCY ANTONY	<i>Ancy Antony</i>
2.	ANUSHA J R	<i>Anusha J.R.</i>
3.	ASIT BANIK	<i>Asit</i>
4.	AVEZ AHAMED M	<i>Avez</i>
5.	CHAITHRA K	<i>Chaitra K</i>
6.	CHANDRAKALA S	<i>Chandra</i>
7.	DEEPA KUMARI	<i>Deepa</i>
8.	DINESH TIRUVA L	<i>Dinesh</i>
9.	DINESH	<i>Dinesh</i>
10.	GOVIND R HEGDE	<i>Govind</i>
11.	HARISH H	<i>Harish H</i>
12.	JAYATI BHATTACHARJEE	<i>Jayati</i>
13.	KOUSER	<i>Kouser</i>
14.	KRUTHI N	<i>Kruthi N</i>
15.	LAVANYA G	<i>Lavanya G</i>
16.	MANJULA L	<i>Manjula</i>
17.	MANJUNATH M	<i>Manjunath</i>
18.	MANOJ KUMAR MANDAL	<i>Manoj</i>
19.	JYOTHI MODI	<i>Jyothi</i>
20.	NARENDRA KUMAR	<i>Narendra</i>
21.	NAGA CHANUKYA K N	<i>Naga</i>
22.	NANDINI S	<i>Nandini S</i>
23.	NARENDRA BABU R	<i>Narendra</i>
24.	PAVITHRA V	<i>Pavithra V</i>
25.	PRATYUSH	<i>Pratyush</i>
26.	PRIYANKA S N	<i>Priyanka</i>
27.	RASHMI V	<i>Rashmi V</i>
28.	RISWANA THASREEM	<i>Rishwana</i>
29.	SANTHOSH M	<i>Santhosh M</i>
30.	SHUBHAM MISHRA	<i>Shubham</i>
31.	SHUBHASHINI R	<i>Shubha</i>
32.	SUKANYA E	<i>Sukanya</i>



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33	TEJASWINI B	<i>Tejas</i>
34	VEERENDRA H M	<i>Veerendra</i>
35	VENKATASWAMY R	<i>Venk</i>
36	BHARATH H N	<i>Bharath</i>
37	DIVYA T	<i>Divya</i>
38	NAGENDRA BABU V M	<i>Nagendra</i>
39	NATASHA VERMA	<i>Natasha</i>
40	RASHMI SINHA	<i>Rashmi</i>

END OF REPORT





THE OXFORD COLLEGE OF PHARMACY

# 6/9, 1ST MAIN, BEGUR ROAD, HONGASANDRA, BENGALURU-560 068

**PARTICIPATION CERTIFICATE**

This is to certify that Mr/Ms/Dr/Mrs. Chaitra. K has attended a Workshop  
on *Design of Experiment* held at the Department of Pharmaceutics, The  
Oxford College of Pharmacy, Bangalore, Karnataka, for the academic year

2019-20

Co-ordinator

Mrs. Divya S Kumar  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

HOD

Dr. Mallikarjuna Shetty  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

Principal

Dr. Padmaa M Paarakh  
The Oxford College of Pharmacy



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**PARTICIPATION CERTIFICATE**

This is to certify that Mr/Ms/Dr/Mrs. Harish. H has attended a Workshop  
on *Design of Experiment* held at the Department of Pharmaceutics, The  
Oxford College of Pharmacy, Bangalore, Karnataka, for the academic year

2019-20

Co-ordinator

Mrs. Divya S Kumar  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

HOD

Dr. Mallikarjuna Shetty  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

Principal

Dr. Padmaa M Paarakh  
The Oxford College of Pharmacy



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**PARTICIPATION CERTIFICATE**

This is to certify that Mr/Ms/Dr/Mrs. Rashmi. V has attended a Workshop  
on *Design of Experiment* held at the Department of Pharmaceutics, The  
Oxford College of Pharmacy, Bangalore, Karnataka, for the academic year

2019-20

Co-ordinator

Mrs. Divya S Kumar  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

HOD

Dr. Mallikarjuna Shetty  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

Principal

Dr. Padmaa M Paarakh  
The Oxford College of Pharmacy



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**PARTICIPATION CERTIFICATE**

This is to certify that Mr/Ms/Dr/Mrs. Shubham Mishra has attended a Workshop on *Design of Experiment* held at the Department of Pharmaceutics, The Oxford College of Pharmacy, Bangalore, Karnataka, for the academic year 2019-20

  
Co-ordinator

Mrs. Divya S Kumar  
Dept. of Pharmaceutics  
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HOD

Dr. Mallikarjuna Shetty  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

  
Principal

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**PARTICIPATION CERTIFICATE**

This is to certify that Mr/Ms/Dr/Mrs. Divya. T has attended a Workshop on  
*Design of Experiment* held at the Department of Pharmaceutics, The Oxford  
College of Pharmacy, Bangalore, Karnataka, for the academic year 2019-20

Co-ordinator

Mrs. Divya S Kumar  
Dept. of Pharmaceutics  
The Oxford College of Pharmacy

HOD

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Dept. of Pharmaceutics  
The Oxford College of Pharmacy

Principal

Dr. Padmaa M Paarakh  
The Oxford College of Pharmacy