

Ethirmedu, B. Komarapalayam-638 183, Namakkal Dist. Tamilnadu, India.

Approved by : Pharmacy Council of India. New Delhi & Affiliated to The Tamilnadu Dr. M.G.R Medical University, Chennai.

Website: www.jkkmmrfpharmacy.edu.in / E-Mail: principal@jkkmmrfpharmacy.edu.in

Contact No: +919789456750, +919943066944, +919943069944.

Dr.N. SENTHILKUMAR, M.Phárm., Ph.D.,
Principal

DATE:12/12/2022

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY REPORT

SEMINAR TITLE - FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING

VENUE: SEMINAR HALL

DATED: 10/12/2022

RESOURCE PERSON:

Dr. A. CHITRA., M. PHARM, Ph.D.
JKKMMRFS ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY
KOMARAPALAYAM

No. of students enrolled: 330

No. of students certified: 324

No. of students certified in our institution: 44

PROGRAMME

CO ORDINATOR

PRINCIPAL

Dr. N.SENTHILKUMAR, PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

ETHIRMEDU, KOMARAPA AMAR 608 183. NAMAKKAL DISTRICT, YAMILMADU, MUJIA





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Dr.N. SENTHILKUMAR, M.Pharm., Ph.D., **Principal**

Date: 06/12/2022

Yours sincer

REF.NO: JKKM/PH/SEMINAR/REO/2022/07

From

Department of Pharmaceutical Chemistry,

JKKMMRF'S Annai JKK Sampoorani Ammal College of Pharmacy,

Komarapalayam, Namakkal [Dist],

Tamil Nadu,

PIN:638183.

To

The Principal,

JKKMMRF'S Annai JKK Sampoorani Ammal College of Pharmacy.

Komarapalayam, Namakkal [Dist]

Tamil Nadu.

PIN:638183.

Respected Sir,

Subject: Letter for requesting Permission to conduct seminar regarding:

We are writing this letter to request permission to conduct a seminar in the Seminar Hall on 10/12/2022. We wish to conduct the seminar on FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING. We believe that this will be a very informative session that many students will wish to attend.

We request you to kindly permit to conduct training program as this would be a great opportunity for Students to learn all about FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS **TESTING** that would help to shape the students.

Looking forward for your approval.

Thank you

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY ETHIRMEDU, KOMARAPALAYAM - 638 183,

Dr. N.SENTHILKUMAR, PRINCIPAL

NAMAKKAL DISTRICT, TAMILNADU, INDIA,



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CIRCULAR

This is to inform all the students of our college that the seminar on Fundamentals of Biostatistics and Hypothesis Testing for the academic year 2022-23 will be commenced on 10/12/2022 for all the batches. Hence request all the interested candidates to register for the seminar.

COURSE NAME	SCHEDULE	VENUE	RESOURCE PERSON
FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING	10/12/2022	SEMINAR HALL	DR.A.CHITRA

All the above-mentioned students must enrol and actively participate in the course without fail.

NOTE: Certificates should be issued to all the students after completion of the course and examination.

PROGRAMME CO-ORDINATOR

PRINCIPAL

Dr. N.SENTHILKUMAR, PRINCIPAL





JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM

YOU ARE INVITED TO A
SEMINAR ON

FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING

Date: 12 DECEMBER 2022

VENUE: SEMINAR HALL

RESOURCE PERSON: Dr. A. CHITRA, M. Pharm., Ph. D.,

Associate Professor

Department of Pharmaceutical Chemistry,

JKKMMRF's Annai JKK Sampoorani Ammal College of Pharmacy



Dr. N.SENTHICKUMAR,

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Dr.N. SENTHILKUMAR, M.Pharm., Ph.D.,

Principal <u>ABOUT THE TOPIC</u> FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING

Hypothesis testing (or statistical inference) is one of the major applications of biostatistics. Much of medical research begins with a research question that can be framed as a hypothesis. Inferential statistics begins with a null hypothesis that reflects the conservative position of no change or no difference in comparison to baseline or between groups. Usually, the researcher has reason to believe that there is some effect or some difference which is the alternative hypothesis. The researcher therefore proceeds to study samples and measure outcomes in the hope of generating evidence strong enough for the statistician to be able to reject the null hypothesis. The concept of the *P* value is almost universally used in hypothesis testing.

Much of statistics involves collecting, describing, and analyzing data that are subject to random variation. Descriptive statistics presents and summarizes collected data to characterize features of their distribution. Inferential statistics analyzes sample data in order to estimate or predict characteristics of the larger population from which the sample is drawn.

Biological phenomena are inherently variable and in this age of "evidence-based medicine" an understanding of such variation through statistical approaches is essential not only for the medical researcher who intends to draw inferences from his sample, but also for the practicing clinician, and the medical teacher whose responsibility is to critically appraise the presented inferences before accepting them into practice or the curriculum. Development of new drugs, devices, and techniques is heavily dependent, nowadays, upon statistical analyses to prove their effectiveness. It is also frequently alleged that statistical analyses can be misused and misrepresented. This should be a further impetus for understanding inferential statistics.

Steps in hypothesis testing

Hypothesis testing, as it stands now, should proceed through the following five steps:

- Select a study design and sample size appropriate to the research question or hypothesis to be tested
- Decide upon the hypothesis test (i.e., test of statistical significance) that is to be applied for each outcome variable of interest
- Once the data have been collected, apply the test and determine the P value from the results observed
- Compare it with the critical value of P, say 0.05 or 0.01
- If the *P* value is less than the critical value, reject the null hypothesis (and rejoice) or otherwise accept the null hypothesis (and reflect on the reasons why no difference was detected).

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STUDENTS FEEDBACK ANALYSIS

Very satisfied S Satisfied 3 Neutral 2 Dissatisfied 1 Very dissatisfied 0 Extremely clear 5 Very clear 4 Moderately clear 2 Not very clear 1 Not at all clear 0 100% 5 75% 4 50% 3 25% 2 0% 1 Extremely Informative 3 Moderately Informative 1 Not very informative 1 Not very informative 1 Not very informative at all 0 Yes 5	5
Neutral 2 Dissatisfied 1 Very dissatisfied 0	
Dissatisfied 1 Very dissatisfied 0 Extremely clear 5 Very clear 4 Moderately clear 2 Not very clear 1 Not at all clear 0 100% 5 75% 4 50% 3 25% 2 0% 1 Extremely Informative 5 Very Informative 3 Moderately Informative 1 Not informative at all 0 Yes 5	
Very dissatisfied 0	5
Extremely clear 5 Very clear 4 Moderately clear 2 Not at all clear 0 100% 5 75% 4 50% 3 25% 2 0% 1 Extremely Informative 5 Very Informative 2 Not very informative 1 Not informative at all 0 Yes 5	5
Very clear 4 Moderately clear 2 Not very clear 1 Not at all clear 0	5
Moderately clear 2 Not very clear 1 Not at all clear 0	5
Moderately clear 2	3
Not at all clear 0	
Percentage of the information was new	
Percentage of the information was new	
Percentage of the information was new	
Solution Solution	
25% 2	5
Extremely Informative 5	
Very Informative 3	
Informative Moderately Informative Not very informative Not informative at all Yes Technical issues	
Informative Not very informative 1 Not informative at all 0 Yes 5	
Not informative at all 0 Yes 5	5
Yes 5	
5 Technical issues	
5 Lecunical Issues	5
No 0	3
Like to learn more about this Yes 5	5
6 topic No 0	3
Extremely clear 5	
Rate the content of the Very clear 3	
7 slides/virtual aid Moderately clear 2	
Not very clear 1	5
Not at all clear 0	5

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		Extremely clear	5	
	Accuracy of the sessions	Very clear	3	_
8		Moderately clear	2	5
		Not very clear	1	
		Not at all clear	0	
		Excellent	5	
	Session expectations	Good	3	
9		Fair	2	5
		Poor	1	
		Not at all clear	0	
		1	1	
10	Rate the content of the seminar	2	2	
		3	3	5
		4	4	
		5	5	

Total marks = 50

HEAD OF THE DEPARTMENT

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PRINCIPAL

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DEPARTMENT OF PHARMACEUTICAL CHEMISTRY SEMINAR FEEDBACK FORM

STUDENT NAME:	DATE:
YEAR/ COURSE:	
NAME OF THE SEMINAR:	DURATION:

EVALUATE HONESTLY:

Excellent	Good	Fair	Poor
	Excellent	Excellent Good	Excellent Good Fair

Student Participation

- 1. On average, how many hours a week did you spend on this course (in and out of class)? A)0-2 B) 2-5 C)6-10 D)11-14 E)15UP
- What grade do you expect in this course?A) BELOW 50% B) 50-60% C) 60-70% D) 70-80% E) ABOVE 80%

SIGNATURE Dr. N.SENTHILKUN

Dr. N.SENTHILKUMAR, PRINCIPAL





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Dr.N. SENTHILKUMAR, M.Pharm., Ph.D.,

	Principal DEPARTMENT OF PHA	RMACEUTICAL CHEMISTRY
		DBACK FORM
COU	E OF STUDENT: RSE: INAR TOPIC:	REGISTRATION NO: YEAR & SEMESTER: DATE & TIME:
1.	Overall, how satisfied were you with this sem	inar?
	C Very satisfied	
	Satisfied	
	C Neutral	
	C Dissatisfied	
	C Very dissatisfied	
2.	How clear were the ideas and concepts we pro	esented?
	Extremely clear	
	C Very clear	
	C Moderately clear	
	Not very clear	
•	Not at all clear	49
3.	What percentage of the information was new	to you?
	C 100%	
	C 75%	
	50%	
	C 25%	
4.	How informative did you find our seminar?	
	C Extremely Informative	
	C Very Informative	
	C Moderately Informative	
	O Not very informative	
	C Not informative at all	



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5.	Were there any technical issues that prevented you from seeing or hearing the seminar?				
	C Yes				
	C No				
6.	Would you like to learn more about this topic?				
	C Yes				
	C No				
7.	Rate the content of the slides/virtual aid?				
	C Extremely clear				
	C Very clear				
	C Moderately clear				
	C Not very clear				
	Not at all clear				
8.	How accurate was the session description?				
	Extremely clear				
	C Very clear				
	Moderately clear				
	Not very clear				
	O Not at all clear				
9.	How did the session compare to your expectations?				
	C Excellent				
	C Good				
	C Fair				
	C Poor				
10.	Not at all clear How would you rate the content of the seminar?				
10.	C 1				
	c_2				
	c_{3}				
	c_4				
	C 5				
	Student Name with Signature				



Student Name with Signature

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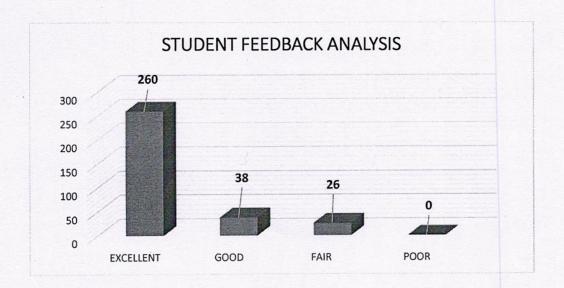
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REPORT SUMMARY

Feedback Question Analysis - Question Asked-Feedback Rating

6.Like to learn more about this topic
7.Rate the content of the slides/virtual aid
8.Accuracy of the sessions
9.Session expectations
10.Rate the content of the seminar





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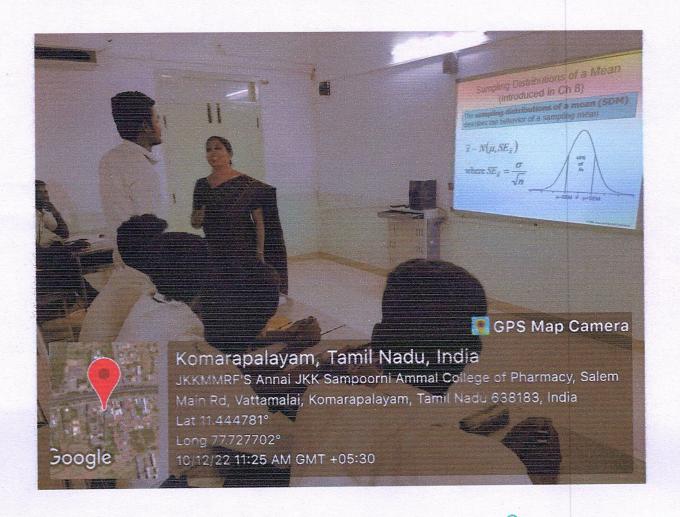
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FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING SEMINAR PHOTO





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Principal

LIST OF PARTICIPANTS

S.NO	NAME	YEAR	COURSE
1.	ABINAYA V	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
2.	ANITHA M	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
3.	DHIVYA K	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
4.	MANISHA M	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
5.	PAVITHRA K	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
6.	PRIYANKA V	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
7.	SANTHANAKRISH NAN K	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
8.	SOJARNA K	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
9.	SUBHASHINI D	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
10.	SURYAMATHI P	SEM-II	M.PHARM (PHARMACEUTICAL CHEMISTRY)
11.	AAKASH S	SEM-II	M.PHARM (PHARMACEUTICAL ANALYSIS)
12.	ARUNPRAKASH S	SEM-II	M.PHARM (PHARMACEUTICAL ANALYSIS)
13.	DEEPIKA R	SEM-II	M.PHARM (PHARMACEUTICAL ANALYSIS)



Dr. N.SENTHILKUMAR, PRINCIPAL

14.	GOKULAKANNAN M	SEM-II	M.PHARM (PHARMACEUTICAL
15.	HARSHA VARDHINEE K	SEM-II	ANALYSIS) M.PHARM (PHARMACEUTICAL
16.	JAGADESWARAN C	SEM-II	ANALYSIS) M.PHARM (PHARMACEUTICAL
17.	MARIMUTHU P	SEM-II	ANALYSIS) M.PHARM (PHARMACEUTICAL
18.	RAGUNATH S	SEM-II	ANALYSIS) M.PHARM (PHARMACEUTICAL
19.	SATHISH KUMAR V	SEM-II	ANALYSIS) M.PHARM (PHARMACEUTICAL ANALYSIS)
20.	VISHNU M S	SEM-II	M.PHARM (PHARMACEUTICAL ANALYSIS)
21.	NANDHINI.S	SEM-I	M.PHARM (PHARMACEUTICAL CHEMISTRY)
22.	RAJESH KUMAR S	SEM-I	M.PHARM (PHARMACEUTICAL CHEMISTRY)
23.	CHERAN K	SEM-I	M.PHARM (PHARMACEUTICAL ANALYSIS)
24.	PRAVEEN RAJ K	SEM-I	M.PHARM (PHARMACEUTICAL ANALYSIS)
25.	PRIYADHARSHINI. B	SEM-I	M.PHARM (PHARMACEUTICAL ANALYSIS)
26.	SUBASH.V	SEM-I	M.PHARM (PHARMACEUTICAL ANALYSIS)
27.	VAHITH E	SEM-I	M.PHARM (PHARMACEUTICAL
28.	ARATHY P NAIR	SEM-IV	ANALYSIS) M.PHARM (PHARMACEUTICAL
29.	EZHILARASAN S	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
30.	GOKUL T	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
31.	RAGAVI P	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
32.	REVATHI J	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
33.	SOMASUNDARAM	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
34.	P STELLAMARY D	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
35.	SUGANTHI P	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
36.	ASARUDEEN A	SEM-IV	CHEMISTRY) M.PHARM (PHARMACEUTICAL
SEAN			ANALYSIS)

Dr. N.SENTHILKUMAR,

ASWIN KUMAR N	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
HARIPRAKASH K	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
KARTHICK S	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
KATHIRAVAN K N	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
RAMKUMAR K	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
SATHISH KUMAR G	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
SRIVIJAY R	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
VIGNESH S	SEM-IV	M.PHARM (PHARMACEUTICAL
		ANALYSIS)
	HARIPRAKASH K KARTHICK S KATHIRAVAN K N RAMKUMAR K SATHISH KUMAR G SRIVIJAY R	HARIPRAKASH K SEM-IV KARTHICK S SEM-IV KATHIRAVAN K N SEM-IV RAMKUMAR K SEM-IV SATHISH KUMAR G SEM-IV SRIVIJAY R SEM-IV





JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM.

Certificate of Participation

This certificate is proudly awarded to

HAS PARTICIPATED AS A DELEGATE IN THE SEMINAR TITLED ON "FUNDAMENTALS OF BIOSTATISTICS AND HYPOTHESIS TESTING" IN THE JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM ON 12.12.2022.



COORDINATOR



JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, ETHIRMEDU, KOMARAPALAYAM - 638 183, NAMAKKAL DISTRICT, TAMILNADU. PRINCIPAL