



**FACULTY DEVELOPMENT PROGRAMME ON INTRODUCTORY
COURSE ON RESEARCH METHODOLOGY & BIostatISTICS**



Under
Dr. Padam Singh Research & Development Scheme
For PG Students and Faculty

Organised By:

MULTI-DISCIPLINARY RESEARCH UNIT



सत्यमेव जयते
Government Of India

**Pt. B. D. Sharma
Postgraduate Institute of Medical Sciences
University of Health Sciences
Rohtak, Haryana**

SPONSORED BY: INSTITUTE OF APPLIED STATISTICS



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Regional Coordinator**

Dr. Simmi Kharb

Sr. Prof. & Head (Biochemistry) &
Nodal Officers. (MRU)
Pt. B.D. Sharma PGIMS, Rohtak

National Coordinator

Dr. Shubham Pandey

Assistant Professor & Head
Department of Biostatistics
Himalayan Institute of Medical Sciences
Swami Rama Himalayan University, Dehradun

Date: 5th & 6th May, 2022

Timing : 9:00 AM

Venue: LT-5, PGIMS, Rohtak

KEYNOTE SPEAKERS

Dr. Anup Kumar

Assistant Professor
(Deptt of Statistics &
Health Informatics,
SGPGIMS, Lucknow)

Dr. Amit Mishra

Assistant Professor (Deptt of Statistics &
Baba Saheb Bhimrao Ambedkar
University, Lucknow)

For any query : Dr. M.K. Nayaz : 8789135365

ABOUT THE COURSE

This workshop focused on the procedure to do quality research. As a researcher it is mandatory for one to know the basics and have a core idea in order to satisfy the purpose of research and establish an acceptable conclusion. This course has given this opportunity to the academicians to enhance the knowledge of biostatistics, their researching skills and understand the methodologies.

COURSE CONTENT:

1. Basis Steps of Fundamental Biostatistics:

Research, Objectives of Research, Need and Purpose of Research, Types of Research, Research according to application or objectives, Scope and Areas of Research, Role of Statistics in Research.

2. Fundamentals of study Design Tools:

Study design, Experimental study design (Intervention Studies), Cohort Study, Case control study, Bias in case-control study, Cross sectional study.

3. Fundamentals of sampling & Data Collection:

Sampling, Probability or Random Sampling, Non-Probability Sampling, Selection of Subjects/Data collection, Techniques of Data Collection.

4. Fundamentals of Reliability & Validity of Data:

Study Tools, Introduction to Reliability & Validity, Sources of "Unsystematic" Threats to Reliability.

5. Fundamentals of Qualitative & Quantitative Analysis:

Qualitative analysis, Quantitative analysis.

6. Descriptive Statistics:

Tabulation Presentation- Introduction, Classification of data Graphical presentation- Introduction, General Rules for Graphic - Presentation of Data and Information, Types of Graphs, Pie Charts, The Histogram, Scatterplots, Line Graphs, Frequency Polygon or Histogram, Frequency Curve, Cumulative Frequency Curve or Ogive, Merits of a Graph presentation, Limitations of a Graph presentation.
Central Tendency- Introduction, Median, Mode, Geometric Mean, Harmonic Mean, Quartiles, Deciles, Percentiles, Measure of Dispersion, Kurtosis, Skewness.

7. Inferential Theory:

Inferential Statistics, Hypothesis Testing, Types of hypothesis, Power of a test and power function, Level of Significance, Concept of critical region, Two-Tailed Hypothesis Tests, One-Tailed Hypothesis Tests, Degree of freedom.

8. Fundamentals of Correlation & Regression Theory:

Correlation coefficient, Calculation of the correlation coefficient, Spearman rank correlation, Regression, Assumptions.

OBJECTIVE:

To focus on basic biostatistics and epidemiology in the Medical Research and give a demonstrate knowledge and scientific research in health-related fields and explain the concepts of basic biostatistics & epidemiology, and to perform the computations involved in statistical techniques

COURSE FEE
1770/- INR Per Participant
(18% GST Included)

WORKSHOP REGISTRATION:

- Where to Register : <https://www.iasdes.com/workshop-registrationnrru.html>
- **Hard Copy of Certificate & Study Material** will be provided to all the participants.
- **Lunch & Evening Tea-Snacks** will be provided during Workshop.

WHO SHOULD ATTEND:

Doctors / faculty, any Research scholar of any Medical or non-medical colleges / Universities.

COORDINATORS:

Dr. Simmi Kharb
Regional Coordinator
Nodal Officer
Multi-Disciplinary Research Unit
Sr. Prof. & Head (Biochemistry)
Pt. B. D. Sharma Post Graduate Institute of
Medical Sciences, Rohtak, Haryana
Contact No. : +91-9812016036

Dr. Shubham Pandey
National Coordinator
Deputy Director,
Institute of Applied Statistics,
Kanpur, Uttar Pradesh

Programme Schedule

Faculty Development Program on Introductory Course on Research Methodology & Biostatistics

Day 1		Topics	Guest Speaker
09:00 AM	09:30 AM	Inaugural & Interaction with Guest speaker	
10:00 AM	11:30 AM	Fundamental of Research Methodology & its steps	Dr. Amit Mishra
11:30 AM	01:00 PM	Fundamental of study design & its measure	Dr. Anup Kumar
01:00 PM	02:00 PM	Lunch	
02:00 PM	03:30 PM	Fundamental of Statistics, Data, Data Quality & Collection Methods	Dr. Anup Kumar
03:30 PM	05:00 PM	Descriptive Statistics & Data Presentation	Dr. Amit Mishra
Day 2		Topics	
9:00 AM	10:00 AM	Fundamental of Sampling and Sample Size	Dr. Anup Kumar
10:00 AM	11:30 AM	Fundamental of Inferential Statistics	Dr. Anup Kumar
11:30 AM	01:00 PM	Parametric Test & Its interpretation	Dr. Amit Mishra
1:00 PM	2:00 PM	Lunch	
2:00 PM	3:30 PM	Non- Parametric Test & Its interpretation	Dr. Amit Mishra
3:30 PM	5:00 PM	Fundamentals of Correlation and Regression	Dr. Anup Kumar
Certificate Distribution			



REGISTRATION FORM

Workshop on Research Methodology & Biostatistics


Date: 5th & 6th May, 2022

Organized By: Multidisciplinary Research Unit (MRU)

Pt. B.D. Sharma PGIMS, Rohtak

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Designation	
Department	
Institute	
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