



Shri Guru Ram Rai Institute of Medical & Health Sciences

&

Institute of Applied Statistics



Jointly Organizes

WORKSHOP ON INTRODUCTORY COURSE ON RESEARCH METHODOLOGY & BIostatISTICS

11th & 12th November, 2022

at

Shri Guru Ram Rai Institute of Medical & Health Sciences
Dehradun, Uttarakhand



Accredited by Uttarakhand Medical Council

Chief Patron

Shri Mahant Devendra Dass
Chairman,
Shri Guru Ram Rai Education Mission

Organizing President

Prof. G. Ramalakshmi
Dean
Shri Guru Ram Rai
Institute of Medical & Health Sciences
College of Nursing

Guest Speaker

Dr. Atul Juneja
Former Scientist F
National Institute of Medical Statistics
ICMR, New Delhi

Patron

Prof. Dr Yashbir Dewan
Principal,
Shri Guru Ram Rai
Institute of Medical & Health Sciences

Dr. Malvika Mahendra Tiwari
Director
Institute of Applied Statistics

Prof. Dr Puneet Ohri
Head of Department,
Community Medicine

Organizing Secretary

Dr. Malvika Singh
Dean
Shri Guru Ram Rai
School of Paramedical College

Dr. Shubham Pandey
National Coordinator
(PSRD Scheme)
Additional Director
Institute of Applied Statistics,
Kanpur, Uttar Pradesh





INTRODUCTORY COURSE ON RESEARCH METHODOLOGY & BIOSTATISTICS

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
1180/- INR Per Participant
(18% GST Included)

WORKSHOP REGISTRATION:

- Where to Register : <https://iasdcs.com/>
- **Hard Copy of Certificate & Study Material** will be provided to all the participants.

WHO SHOULD ATTEND:

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

COORDINATORS:

Dr. Shalki Mattas

State Coordinator (Uttarakhand)
Assistant Professor,
Department of Community Medicine,
SGRR-IMHS, Dehradun, Uttarakhand

Dr. Shubham Pandey

National Coordinator (Dr. Padam Singh R&D Scheme)
Additional Director,
Institute of Applied Statistics,
Kanpur, Uttar Pradesh

