ABOUT THE COURSE

Quantitative data analysis skill is one of the most valuable skills for the professionals in the areas of health, economics, sociology, and marketing sectors. Research organizations and academic institutes globally are shifting towards coding based statistical software like R and Python from Menu based software, such as SPSS. The statistical software R is a powerful programming language widely used for quantitative data analysis including both statistical computing and graphics generation. In response to the growing demand for data analysis using R, this course is the first one of a series of courses to be offered by CPSD on R software. It is a two-day course that is designed with a view to helping academics, researchers, data analysts and professionals coming from different backgrounds to learn data analysis using R and apply this knowledge in their respective fields.

ABOUT

Unlike some other statistical packages like SPSS, SAS and Stata, R is an open-source programming language, therefore, globally, academics, researchers, public health practitioners, and many other professionals now-a-days prefer R over other commercial software. R is a complete, integrated software package, which provides everything that data science needs, including data management, data analysis, visualization, and automated reporting. Additionally, R is one of the most powerful statistical software for creating customizing data visualization structure such as graphs, charts, maps, and many others.

DURING THE COURSE YOU WILL LEARN

- Installation of R, R Studio and different R packages
- Use of common base R functions
- Basic data management and manipulation skills using R
- Use of tidy verse packages in data management and statistical analysis
- Data visualization (creating different types of graphs, charts, etc.) using ggplot2 package
- Applying different inferential statistical techniques (e.g., one- and two-sample tests for mean and proportion, analysis of variance, etc.)

WHO CAN APPLY FOR THIS COURSE?

This course is designed for academic researchers, public health professionals, market analysts and Government/NGO employees who deal with different types of quantitative data arise from different research projects and programmes. Graduate students and PhD candidates who need to apply statistical tools for their research projects as well as who are

going to apply for higher studies in developed countries will also find this course useful. The course will also be of interest to non-academic participants who have to analyse data and present research findings using intuitive visual aids to a wider group of audience like program personnel, and policy makers. Indeed, this course is suitable for any enthusiastic learner who wishes to be good at quantitative research. It is **NOT** required to have the prior knowledge of any statistical software to attend the course.

COURSE INSTRUCTOR



Dr Mahbub Latif is a Professor of Applied Statistics at the Institute of Statistical Research and Training (ISRT), University of Dhaka (DU), Bangladesh. He is also an adjunct Professor at BRAC James P Grant School of Public Health (BRAC JPGSPH), BRAC University. Professor Latif completed his BSc and MSc in Statistics from the DU in 1993 and 1995, respectively. He did a second MSc in Statistics from the University of British Columbia, Canada in 2001 and

received his PhD in Applied Statistics from the University of Goettingen, Germany in 2005.

Professor Latif has more than 25 years of experience in research and teaching. He has interests in both methodological and applied research in different topics of statistical science and public health that include biostatistics, causal inference, design and analysis of experiments, correlated data analysis, statistical computing, and public health. He has been teaching Applied Statistics at the DU since 1996. Professor Latif has been teaching Biostatistics in the MPH Programme at BRAC JPGSPH since 2012 and taught Biostatistics at St. Luke's International University, Tokyo, Japan from 2016 to 2019. So far, Professor Latif has published about 35 manuscripts in peer-reviewed statistics and public health journals, and supervised 29 students for their MS thesis in Applied Statistics at the DU. Professor Latif has been using R software for more than 20 years for his research and teaching, and is a certified tidyverse trainer.

COURSE FACILITATOR

The implementers for the course include experts and highly experienced researchers and statisticians from Institute of Statistical Research & Training (ISRT), University of Dhaka and BRAC JPG School of Public Health, BRAC University.

Participants are requested to bring their own LAPTOP (64 Bit Operating System) during the course. Wi-Fi facilities are available.

This is a non-residential **INPERSON** course.

The course fee includes training materials, tea, snacks and lunch

HOW TO APPLY

Organised by

Centre for Professional Skills Development in Public Health BRAC James P Grant School of Public Health