Data Analysis using IBM SPSS
for management and researchers

Instructor Profile
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Dr. Raza received his Ph.D. in 2011 from University of Karachi. He had extensive experience in data analysis and Big Data analytics. Dr. Raza had several peer reviewed publications and authored 4 books out of which two were published from Germany and are available at amazon.com. His research interests include AI, soft computing, data mining, Big Data Analytics, simulations and stochastic modeling. He is a senior member of IACSIT and recipient of best teacher award by the Education Department at the occasion of World Teachers Day 2011.

Course Description:
Analytical skills are important across the range of scientific and business research. Without these skills it is difficult to authenticate and conclude research. The objective of this course is to develop students' abilities to describe, analyze and interpret data soundly, making effective use of analytic software IBM SPSS. This Course will cover a wide range of topics from elementary techniques to advanced topics like structural equation modeling. Course participants will gain both the theoretical background and practical exposure to data analysis. There will be a strong emphasis on practical analysis of field data. Participants are encouraged to bring their own data for analysis.

Learning Outcomes:
By the end of the course you should be able to do following tasks using SPSS:

• Describing research problem, writing research proposal
• Sampling techniques, designing questionnaires and gathering data
• Getting data into SPSS, coding and validating data
• Interpreting using descriptive procedures
• Screening the data for analysis
• When and how to compare mean, variance and proportion of a population
• Comparing differences between two or more groups
• Research problems involving nominal scores (Chi-Square procedures)
• Role of multiple regression models in research
• Using dummy variables in regression models and logistic regression, stepwise regression, and sequential regression
• Applications of multiple, partial correlation, serial and canonical correlation
• When and how to use factor analysis in multivariate data analysis scenarios
• MANOVA, profile analysis, Factor Analysis
• SEM (Structural Equation Modeling) with applications
• Writing your research for ISI indexed publication
**Teaching Methodology:**
A fast moving, interactive, but structured training cum lecture based course comprised over 12 tutorial sessions each of two and half hours, most of them in computer lab. The lectures will present the concepts, methods and results, drawing on business research applications to illustrate using SPSS. Pdf files of lecture slides and other course notes will be placed on Dr. Raza’s course portal.
https://sites.google.com/site/drakhter67

**Course Duration:**
Total duration of this course is 30 hours which is broken into 12 lectures each of 2½ hours, 3 lectures per week.