Introduction to Statistics and Quantitative Data Analysis

Course Proposition and Executive Summary

This course caters to executives, analyst and researchers looking at learning statistics and quantitative data analysis methods in an interactive and easy-to-understand approach. Participants will be exposed to the salient quantitative research tools and techniques where case studies will be highlighted to facilitate learning and understanding of concepts amongst participants.

Who is this course for?

This course is designed with beginners in mind and assumes no prior knowledge of statistics or quantitative research background. Participants who have an interest in learning and picking up quantitative data analysis methods and concepts will find this course useful and applicable.

Course Content

Introduction to Statistics

- Types of variables and classification
- Descriptive statistics
- Inferential statistics

Introduction to quantitative data analysis*

- Overview on quantitative and qualitative data analysis
- Univariate analyses and robust estimators
- Quantitative research techniques and tools:
  - Chi-square test
  - Independent sample T-test
  - ANOVA Models
  - Bivariate correlation test
  - Non parametric tests
    - o Wilcoxon rank sum test
    - o Spearman correlation
  - Simple and multiple linear regression

*The course will be conducted with computer-aided data analysis software and participants will get a chance to see how analytics are being applied in real-life scenario.

Course Objectives

After attending this course, participants will be able to:

1. Apply basic statistics and quantitative research methods in their work.
2. Carry out basic research using methodologies, and be able to perform different types of quantitative data analysis taught during the course.
3. Interpret and explain statistical outputs and be able to apply it into their field of research.

Pre-requisite

There is no course pre-requisite for this introductory course

Mode of Assessment

Participants are required to sit for an open book quiz which exemplifies what was taught in this introductory course.

Price Schedule

SGD$950 Nett

Certificates/Awards

Certificate of Performance/Achievement will be awarded if participant satisfies the course criteria.

Profile of Trainer

Mr. Ng Jinsheng joined IBM SPSS in 2008 as an Executive in Training and Consulting after his graduation from the National University of Singapore (NUS) with a Degree in Statistics and Applied Probability. During his stay in IBM SPSS, he has trained hundreds of participants from the public service and private sector in statistical and data mining concepts, tools and applications in solving business problems. He has also led consulting projects and worked with C-level executives in addressing pressing business issues during which he received numerous praises and testimonies. During his working with IBM SPSS, Mr. Ng Jinsheng also completed his Masters of Science in Knowledge Management [M.Sc(KM)] from the Nanyang Technological University (NTU) and graduated one of the top in his cohort with a Dean's List award in academic excellence. He later joined SAS Institute as an Education Specialist in the Training department, and thereafter as a Senior Associate in professional Consulting services.

An academic paper he has co-authored was nominated for the Best Paper Award in the 20th International Conference on Computers in Education (2012). He is currently a founding member of AnaVantage Management Consultancy LLP, and lectures and trains at Tertiary Institutions in Singapore in the area of business statistics, data mining and analytics, and develops analytics courses for undergraduate programmes in Singapore. He is also an IBM Business Analytics Certified Specialist in IBM SPSS Modeler (Professional) and IBM SPSS Statistics, as well as SAS Certified Predictive Modeler using SAS Enterprise Miner and SAS Certified Business Analyst using SAS 9: Regression and Modeling.

Professionally as a Trainer, Jinsheng possessed an Advanced Certificate in Training and Assessment (ACTA) conferred by the Workforce Development Agency of Singapore (WDA) and a proud recipient of the prestigious "Excellence in Teaching" Award (EIT) conferred by the Singapore Polytechnic (SP) during the Annual Excellence in Teaching and Training Convention 2015. He is also conferred the title of an *Associate Adult Educator* by the Institute of Adult Learning (IAL) in 2016, an Adult Educators' Professionalisation recognition which awards pedagogical and professional excellence.