



## **Course Proposition and Executive Summary**

The Corporate sector is not the only ones benefitting from the power of analytics. Unprecedented information explosion and multi-faceted public issues have driven the need for the public service to stay on top of the economic, social and political situations. In the light of immense uncertainties faced, the challenge for the public service is not only to make informed decisions but to also offer intelligent solutions. By leveraging the power of analytics, the public service is now able to respond with insights and foresights derived from the huge amount of data which previously had lain hidden and largely untapped.

Business leaders, who traditionally rely on intuition and instincts in their decision making, can now have at their disposal, an alternative source of information offering insights through the employment of analytics - and be amazed by what their data is telling them.

In this course, participants will learn how to address business needs through the use of analytics, how some organizations have done it and what has been done to achieve them. Conducted interactively with case studies and real business problems, participants can expect to learn the principles behind the power of analytics. In particular, this course is an extension of the "Principles of Business Analytics for the Public Sector" and covers more grounds and depth in terms of advanced modeling techniques, model evaluation and issues facing deployment.

### **Who is this course for?**

Covering theories and practical, this course addresses a wide variety of business issues and how it may be solved using analytics. It caters to people from a diverse background from Company Directors, who provides the organization's strategic vision and direction, to Professionals like Managers and Analysts looking to solve today's business problems using the power of analytics.

This course is designed for participants who have the relevant training in school or at work and are keen to learn new abstract concepts and techniques such as logistic regression, neural networks and sequence detection, and how to effectively evaluate and deploy models.

### **Course Contents and Duration**

Overview of analytics tools and techniques:

- Predictive Analytics,
- Pattern Discovery
  - Segmentation Modeling,
  - Association Rule Mining

Regression: Making sense of advanced regression models

- Simple Regression,
- Multiple Regression,

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- Logistic Regression

More Models:

- Predictive analytics - Neural Network and its applications
- Pattern discovery – Cluster analysis, Sequence Detection and its applications

Model Evaluation:

- Lift, gains and cumulative captured response chart
- Misclassification and average squared errors

Model Deployment and Model Management

Practical application: Applying principles of analytics using analytics software

\*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**

At the end of this course, participants will be given an open book quiz where they can look forward to applying principles and concepts of advanced analytics discussed during the course.

### **Pre-requisite**

Participants should ideally have attended the class on "Principles of Business Analytics" prior or possessed relevant knowledge and exposure in the areas of basic data mining concepts and predictive and/or segmentation analyses before attending this course.

### **Mode of Assessment**

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

### **Price Schedule**

\$990/pax Nett

### **Certificates/Awards**

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

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## 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.