



Course outline

1. Introduction to Data Analytics
2. Visual Analytics for Data Discovery
 - Principles and concepts of visual analytics
 - Interactive data exploration and analysis approach (IDEA)
 - Designing interactive graphics for data discovery
 - Visualising and analyzing geospatial data
3. Data Analytics Techniques
 - Data analytics lifecycle
 - Supervised vs Unsupervised learning
 - Predictive analytics
 - Pros and cons of each technique
 - Select the best technique
 - Train, test and validate model
 - Results assessment and interpretation
 - Data analytics technologies: commercial off-the-shelf (COTS) vs open source
4. Prescriptive Analytics - Optimisation
 - Optimisation theory
 - LP, IP, MIP, BIP
 - Model formulation
 - Solver definition

Course objectives

Data analytics have been touted as the most important technology which will bring organizations to their next frontier. Managers who are leading their organizations have to play the lead role in shaping the direction and planning the strategies on who, what, when, where and how should data analytics be applied in the different parts of the organization. The proposed training is designed for managers covering several topics in the Data Analytics area.

At the end of the course, participants will be able to:

- Gain a quick overview of data analytics
- Understand the solution flow to solve data analytics problems
- Acquire data analytics techniques and learn how to use related tools through hands-on sessions
- Gain insights into data visualization, predictive modelling, and optimization

Course details

1 week

Certificated by Singapore Management University (SMU)

Who should attend

Managers covering/ leading analytics functions.

Pre-requisites

- Participants should have at least a diploma to benefit from the training
- Participants should have some knowledge in statistics, and be very comfortable with software tools.

Tools

LP, IP, MIP, BIP

Model of training

Classroom, Field trip

