



DATA ANALYTICS FOR WORKPLACE

This course covers a concise introduction on business analytics and how it is applied in our workplace. In this course, participants will learn the concepts of data management, the common analytical techniques used in work environment, from descriptive and diagnostic analytics to predictive and prescriptive analytics as well as the presentation of analysis results using analytical software.

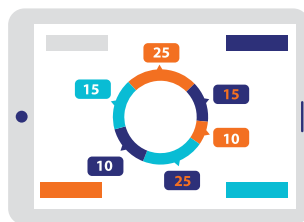


Learning Objectives

Upon successful completion of this course, participants will be able to:



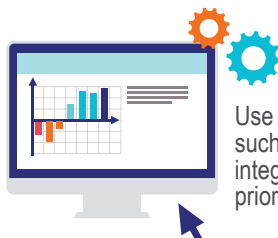
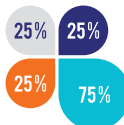
Understand how analytics can be used by organisation to identify new business opportunities and for better decision



Use appropriate data visualisation to communication information to viewers



Appreciate how analytics software tools can be used to harness data to convert them into actionable information that benefits the organisations



Use data reparation techniques such as extracting, cleaning and integrating to pre-process data prior to analysis

Apply common analytical technique in different work scenarios



PRE-REQUISITE Basic knowledge of computer programs

PROPOSED ANALYTICAL SOFTWARE

• Rapid Miner • PowerBI

Course Programme

0900 – 1000

Introduction to Business Analytics

- Overview of business analytics process and methodology
- Understand the phases of Data Analytics Process (Crisp-DM model)
- Discuss on the influence of data in our daily life and disciplines

Analytical Techniques & Application

- Spectrum of analytical techniques (descriptive, diagnostic, predictive, prescriptive, etc)
- Analytics Stages
- Identify and discuss the use of analytical techniques in various business situations or subject areas (business scenarios subjected to change)
 - Procurement Anomaly
 - Social Assistance Scheme
 - Income Tax
 - Education
 - Healthcare Service Delivery
 - Job Satisfaction
 - etc

1000 – 1030

Break

1030 – 1200

Hands-on: Application of Analytical Techniques

Apply the analytical techniques for data analysis in common work scenario using analytical software

1200 – 1300

Lunch

1300 – 1330

Data Preparation Techniques

- Understand the data extraction, transformation and loading (ETL) processes
- Handle different data types, missing values and converting between different formats

1330 – 1430

Hands-on: Data Preparation

- Import of raw data, preparation of data for analysis
- Using analytical software to:
 - integrate data from multiple tables
 - split columns
 - create random sample
 - standardize data (converting data type)

1430 – 1500

Data Visualisation

- Overview of data visualisation
- Using the appropriate charts to present information

1500 – 1530

Break

1530 – 1700

Hands-on: Visualising Data

- Create data visualisations using appropriate charts with the help of analytical software.

Collect Assessment

Conclusion and Q&A session

- Course notes and folders will be provided
- Certificate of participation will be provided for participants who have attended 75% of the course
- Two refreshment breaks per day will be provided