

Computational Thinking (30hrs)

Computational Thinking involves a set of problem-solving skills and techniques that draws on concepts fundamental to computer science. In this module, learners will learn the key concepts of Computational Thinking through activities. Learners will also learn how to apply the Computational Thinking skills, with other useful techniques and tools, incorporating Design Thinking, to solve real world problems.

CyberSecurity Essentials (60hrs)

Learners will be introduced to the basic concepts and principles of information security from personal and enterprise perspectives. It provides an understanding of information security trends, security threats, security incidents, security policies, procedures and guidelines.

AI Essentials (30hrs)

This module equips learners with a broad understanding of AI concepts, different approaches and techniques to building AI systems. Current and future development of AI and its societal impact will be covered. Learners will learn how to apply AI to solve challenging real world problems.

Data Analytics For Workplace (30hrs)

This course covers a concise introduction on business analytics and how it is applied in our workplace. Learners 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.

From Data preparation to Visualization (30hrs)

This module introduces the essential design principles and practices for visualisation. It also covers the human visual system processes, data visualisation approaches for various data types to improve comprehension, communication and decision making.

Data Visualization Practicum (60hrs)

This module provides learners with an overview of business analytics and covers various visualisation techniques for effective communication of information through graphical means. Learners will be exposed to real-world implementation of business analytics projects using both business analytics theories and data visualisation techniques.

Machine Learning Techniques (60hrs)

This module introduces to learners the overview of machine learning techniques. Topics include supervised and unsupervised learning and how to train a model. Learners will also be equipped with the necessary skills to diagnose learning problems to improve the machine learning model.

Text Mining & Analytics (60hrs)

This module covers the concepts and principles of text mining and analytics. Learners will learn the various techniques for analysing text to extract useful insights and patterns to support decision making. They will be introduced to text retrieval, sentiment analysis and topic modelling.