COURSE DURATION

15 hours (inclusive of 1-hour assessment)

COURSE SYNOPSIS

This course is suitable for learners who are new to the latest development in terms of technology for Industry 4.0. This course will introduce current technological tools and its application in the workplace and home. In addition, we will also uncover emerging technology that will impact how we work and interact e.g. 3D printing, ChatGPT, digital apps, etc.

Learners will understand and be able to apply analytics to gain business insights, use automation to enhance productivity understand security risks associated with using emerging technologies and how they can mitigate these risks.

LEARNING OUTCOMES

By the end of this course, learners will be able to:

- State the jobs and digital skills required in the current and future digital economy

- Describe the work requirements in a technology-rich environment and know the associated cybersecurity risks

- Identify various digital applications and tools in work applications, including widely applicable national and sectoral platforms

- Suggest how data and information can be used

- Perform functional outcomes such as the use of digital tools and software to access various learning paths and content

- Develop a post-course action plan to continue learning (i.e., to identify courses that would allow participants to further deepen their skills in the four key areas).

TRAINING METHODOLOGY

- Interactive lecture

- Group discussion

- Hands-on activity

- Tech-enabled learning through Chatbots and Online Quiz

ASSUMED SKILLS

- Learners must be able to read, write, speak and understand English at Secondary school level

- Learners to have minimum GCE 'O' level or ITE certificate education

- Learner should have at least 1 year's working experience in any industry

- Learners must be able to operate a personal computer, use keyboard and mouse

COURSE CONTENT

Learning Unit 1: Data Analytics

- Introduction to SFDW

- Digital Skills and Jobs Awareness in the current and future digital economy

- Importance of Data Analytics in the current and future digital economy

- Use data analytics and visualisation tools such as Excel PivotTable and Power BI to analyse business data

Learning Unit 2: Automation

- Introduction to Automation

- Programmable Automation (3D printing and additive manufacturing tools for fabrication of parts and customised items)

- Using Power Automate to improve work process productivity

- Artificial Intelligence

- Future trends for automation in the workplace

Learning Unit 3: Cybersecurity Risk

- Introduction to Cybersecurity Risk

- Areas of cybersecurity risk and its implication and effect to the individual and organization

- How to mitigate cybersecurity risks? (physical, software, policy and regulatory)

Learning Unit 4: In-demand Digital Tools

- Introduction to Industry 4.0

- Generative Artificial Intelligence such as ChatGPT in areas such as generating response to customer queries or complaints, create course outlines, etc.

- Conversational Automation, such as Google Assistant, chatbots in government and corporate websites

- Nationally launched applications

- Autonomous Robots and Internet of Things and their impact across sectors

- Explore upcoming digital technology and impact on how we work, live and interact

- Develop a learning plan to take ownership of own skills upgrading