

Specification of Competency Standards
for the Manufacturing Technology.
Unit of Competency.

Functional Area - Business Intelligence and Information Technology

Title	Apply Industry 4.0 implementation tools, including hardware and software, to collect and utilise data across different operational areas of enterprise
Code	111550L4
Range	This unit of competency is applicable to the business intelligence and information technology departments, marketing, sales and customer management departments / marketing departments, process design and development departments / engineering departments, product manufacturing departments / production departments, supply chain management departments and product quality monitoring and testing departments / quality control departments of companies in the manufacturing technology industry. Practitioners should be capable to understand and apply Industry 4.0 implementation tools in accordance with Industry 4.0 digital maturity standards, level definitions, intelligent operation characteristics, and requirements for self-assessment, and assist the enterprise in formulating short-term, medium-term, and long-term improvement measures
Level	4
Credit	5
Competency	Performance Requirements - Understand relevant knowledge of Industry 4.0 implementation tools - Understand requirements and responsibilities of the Industry 4.0 digital operation team - Understand Industry 4.0 digital maturity scoring standards, level definitions, intelligent operation characteristics, and requirements - Understand methods to identify and assess implementation steps of Industry 4.0 pilot projects, including raise employees' awareness of Industry 4.0, generate pilot project ideas, conduct cost-benefit analysis, refine and pilot, and full-scale implementation - Understand methods to develop Industry 4.0 strategic plan and formulate short-term, medium-term, and long-term improvement measures - Apply Industry 4.0 implementation tools - Able to assist supervisor in recruit and establish Industry 4.0 digital operation team, including roles such as digital data manager and digital process manager - Able to conduct a self-assessment based on Industry 4.0 digital maturity standards, level definitions, intelligent operation characteristics, and requirements - Able to identify Industry 4.0 pilot projects, including set up agile digital project management dashboard, enhance cost and process transparency - Able to provide data (and analysis results) to assist supervisor to formulate short-term, medium-term, and long-term improvement measures for Industry 4.0 - Professional handling of applying Industry 4.0 implementation tools - Able to prevent any abuse or fraudulent activities that may occur during the application of Industry 4.0 implementation tools
Assessment Criteria	The integrated outcome requirements of this unit of competency are: Able to assist supervisor in establishing an Industry 4.0 digital operation team

	• Able to conduct a self-assessment based on the Industry 4.0 digital maturity standards, level definitions, intelligent operation characteristics, and requirements • Able to identify Industry 4.0 pilot projects, provide data and analysis results to assist to formulate short-term, medium-term, and long-term improvement measures for Industry 4.0
Remark	Industry 4.0 maturity standards: Connectivity (0i) : Data integration of systems such as APS, ERP, MES Visualisation (1i) : Enhanced data availability Transparency (2i): Enhanced data interpretability Predictability (3i): Improved predictability by established patterns and simulated reality Adaptability (4i): Decision-making based on smart data Individuals who possess the above knowledge and competency are able to support the enterprise to achieve the Industry 4.0 digital maturity level of transparency (2i) to predictability (3i)