

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

Functional Area - Product Manufacturing

Title	Develop lean and flexible manufacturing process, layout and facilities
Code	106500L4
Range	This unit of competency is applicable to the corporations of the Manufacturing Technology Industry. Practitioners should be capable to base on the conditions of the production line, develop process, workshop layout and facilities for lean and flexible manufacturing auxiliary equipment, and monitor the operations
Level	4
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Understand relevant knowledge of lean and flexible manufacturing</p> <ul style="list-style-type: none"> • Understand the production methods of lean and flexible manufacturing • Understand the enhancement methods of all workshop equipment, such as Poka Yoke and SMED • Understand the processing equipment which are related to the production line flexibility enhancement on the market • Understand the types, specifications and applications of all kinds of automation processing products and auxiliary equipment of handling parts in the market, including transfer manipulator, multi-axis robots, conveyor belts, flat machine and feeder • Understand the types, specifications, functions and applications of all kinds of automatic testing equipment of all kinds of products, including optical measuring instrument high-speed camera and integrated measuring instrument <p>2. Apply lean and flexible manufacturing methods</p> <ul style="list-style-type: none"> • Coordinate with the existing production line and carry out processing arrangement, design and improve production line, so as to achieve the production target of lean and flexible manufacturing • Analyse and optimise the process of bottle neck • Analyse the equipment demand of Flexible Manufacturing Cell and select suitable equipment • Search the processing equipment which are related to the production line flexibility enhancement on the market and assess their availability • Review the effects of lean and flexible manufacturing, such as whether the inventory of finished goods is reduced and the production cycle is shortened <p>3. Professional handling of lean and flexible manufacturing</p> <ul style="list-style-type: none"> • Carefully consider elements of safety, risk, capacity, quality, environmental protection and cost etc, develop process, workshop layout and facilities for lean and flexible manufacturing auxiliary equipment, and monitor the operations and also meet all aspects of requirements
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Capable to design and improve production line in accordance with lean and flexible manufacturing methods, so as to achieve the production target of lean and flexible manufacturing • Capable to analyse the equipment demand of Flexible Manufacturing Cell and select suitable equipment
Remark	