

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

Functional Area - Process Design and Development

Title	Know tool manufacturing process, and communicate with customers and internal departments
Code	106487L4
Range	This unit of competency is applicable to the markets and sales departments of the Manufacturing Technologies Industries. Practitioners should be capable to understand the general concept of the tooling manufacturing process, and apply in daily work
Level	4
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Understand the general concept of metal product manufacturing process</p> <ul style="list-style-type: none"> <li>• Understand the characteristics of the common tooling manufacturing process, such as preparation of materials, milling, turning, heat treatment, EDM, wire cutting, grinding and polishing *</li> <li>• Understand the types of tooling and recognise of the structure and functional design of all kinds of tooling</li> <li>• Understand the requirements of the drawings, such as tolerance, steel, surface treatment and quality standards</li> <li>• Recognise the types, working principle, applications and specifications of the commonly used tooling processing equipment</li> <li>• Recognise different tooling automation processing and testing processes, methods and equipment</li> <li>• Recognise the latest developments of tooling manufacturing processes and methods in the industry</li> </ul> <p>2. Apply the concept of the metal product manufacturing process</p> <ul style="list-style-type: none"> <li>• Read and explain all requirements of the drawings</li> <li>• Communicate with customers about the structure and functional design of all kinds of tooling, and also meet the customers requirements on product precision, appearance and quantity etc</li> <li>• Preliminary determine the manufacturing methods of the tooling, such as the number of processes, surface treatment and steel selection</li> <li>• Preliminary assess the degree of difficulty of tooling manufacturing, equipment needed and resources coordination</li> <li>• Preliminary estimate the tooling manufacturing costs and assist in making quotations</li> </ul> <p>3. Professional handling of applying the concept of the metal product manufacturing process</p> <ul style="list-style-type: none"> <li>• Continuously absorb the knowledge of tooling design and manufacturing techniques and technologies, and meet the development trend of the industry</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>• Capable to read and explain all requirements of the drawings, preliminary assess the tooling design and manufacturing techniques and technologies, production processes, steel and required equipment</li> <li>• Capable to preliminary estimate the tooling manufacturing costs and assist making quotations</li> </ul>
Remark	Preparation : Including procurement of steel and manufacture the steel into an appropriate size