

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

Functional Area - Product Design and Development

Title	Metal stamping part design for production, assembly, dismantling and surface decoration
Code	106474L4
Range	This unit of competency is applicable to the design and development departments of metal products manufacturing industry. Practitioners should be capable to master the design and all kinds of manufacturing process of metal stamping parts, so as to coordinate with production, assembly, die casting and surface decoration
Level	4
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Understand the design and all kinds of manufacturing process of metal stamping parts</p> <ul style="list-style-type: none"> • Understand the properties of stamping sheet metal material and the corresponding appropriate surface treatment • Understand the general process of design of metal stamping parts, such as blanking, drawing, punching, forming and deburring • Understand the assembly methods of metal stamping parts, such as spot welding and riveting • Understand the priority of production speed and assembly required for design, and the involved production fixtures and tools • Thoroughly understand all kinds of surface treatment methods and techniques, such as the techniques and technologies of grinding, polishing, plating, spraying coating and laser <p>2. Metal stamping part design for production, assembly, die casting and surface decoration</p> <ul style="list-style-type: none"> • According to the requirements of product functions, customer and cost, design a minimum, the most simple stamping process to complete the entire processing and assembly of the metal stamping parts • According to the structure of metal stamping products and surface treatment, design appropriate production methods, tools and fixtures, so as to improve the production efficiency • Recommend suitable surface treatment methods, so as to meet the required effects • Produce completed drawings and list out product specifications and BOM to other departments to process (BOM) <p>3. Professional handling of metal stamping part design for production, assembly, die casting and surface decoration</p> <ul style="list-style-type: none"> • Detailedly consider elements such as safety, risk, productivity, quality, environmental protection and cost, carry out metal stamping part design for production, assembly, die casting and surface decoration and 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 produce completed drawings and list out product specifications and BOM to other departments to process • Capable to design appropriate production methods, tools and fixtures, so as to improve the production efficiency
Remark	