

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

Functional Area - Product Design and Development

Title	Management of product concept creation and design configuration
Code	106485L4
Range	This unit of competency is applicable to design and development departments of Manufacturing Technology Industry. Practitioners should be capable to analyse customer and market requirements of appearance and function, create and select product concepts, and manage all kinds of modifications during design process
Level	4
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Understand the knowledge of management of product concept creation and design modifications</p> <ul style="list-style-type: none"> • Recognise commonly used types of new materials and their application on the category of product design • Recognise the product design methods and principles • Understand market research reports contents and product development trends • Understand the communication mechanisms of corporate product development projects and corporate product engineering modifications management mechanism • Understand the international construction management and engineering modifications management standards ISO10007 <p>2. Management of product concept creation and design modifications</p> <ul style="list-style-type: none"> • Collect the product appearance and functional requirements of customers or market • Analyse the requirements of customers or market in the feasibility of actual product design, provide feedback and explain the reasons • According to all kinds of requirements, apply all product concepts creation methods to lead the product design team to create product design concepts, including TRIZ, brain storming, analogy, function matrix, and functional mapping • Effectively communicate with customers and all relevant departments, explain all considerations on product design • Effectively apply of corporate product engineering modifications management and records of all engineering modifications, and issue the request of engineering modifications to all relevant project staff • Examine the product design effort, and ensure it meets the requirements of the latest engineering design • Continuously examine all the latest innovative methods, select the appropriate innovative methods and carry out internal promotion <p>3. Professional handling of management of product concept creation and design modifications</p> <ul style="list-style-type: none"> • Detailedly consider elements such as safety, risk, productivity, quality, environmental protection and cost, carry out management of product concept creation and design modifications 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 apply all innovative tools to create product design concept • Capable to manage the modifications of product appearance and functions, effectively communicate with customers and relevant departments and ensure the engineering design meets the latest requirements
Remark	