

Unit of Competency**Functional Area: Warehousing and Logistics**

Title	Design material flow and warehouse layout in warehouse operations
Code	105313L5
Range	This unit of competency is applicable to practitioners in the import and export industry to design the material flows and warehouse layouts in warehouse operations.
Level	5
Credit	8 (for reference only)
Competency	<p>Performance Requirement</p> <ol style="list-style-type: none"> 1. Command warehouse design and material flow <ul style="list-style-type: none"> • Examine warehouse material flow design • Examine warehouse functional locations 2.1. Compile activity relationship profile <ul style="list-style-type: none"> • Identify the inter-functional and inter-processes relationships in the warehouse • Compile activity relationship profile to identify the level of importance of warehouse activities (e.g., receiving, inspection, storage, picking, and shipment staging) to suggest the location of functions and processes relate to other activities in a block layout 2.2. Prepare to plan material flow <ul style="list-style-type: none"> • Identify and consult stakeholders on flow of material • Identify and analyse workplace procedures and policy that may affect material flow • Identify source and obtain sources of information relevant to material flow 2.3. Conduct material flow analysis <ul style="list-style-type: none"> • Select appropriate tools (e.g., MRP) to plan optimal inventory levels, purchases and distribution schedule based on such elements as customer's production schedule, stock on hand, lead times, sale order quantities and due dates, purchase order quantities and due dates, lot sizing policies, and safety stock requirements • Conduct and conclude material flow analysis with available resources • Implement, monitor, and amend material flow activities according to applicable methodologies and procedures • Allocate resources to material flow according to material flow plan 3. Design warehouse layout and material flow <ul style="list-style-type: none"> • Use layout design and material flow methods and techniques appropriate to design warehouse flow (e.g., U-shaped flow, straight-thru, modular-spine, or multistory flow pattern) in accordance with plans and standard procedures • Conclude layout design and material flow analysis with available resources • Implement, monitor, and adjust (if required) layout design and material flow activities based on changing circumstances • Allocate resources to material flow in accordance with material flow plan and resource availability
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Capable of conducting material flow analysis • Capable of designing warehouse layout and material flow
Remark	