

**Specification of Competency Standards**  
**for the Logistics Industry**  
**Unit of Competency**

Functional Area - Operations Management

Title	Apply simulation technique to test efficiency of operation
Code	LOCUOM408B
Range	This unit of competency is applicable to sea freight, air freight and express operators. Practitioners should be capable to apply simulation technique to analyse the flow of large-scale cargo operation and use the result of analysis to improve the flow of cargo operation.
Level	4
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess the knowledge of simulation technique for testing</p> <ul style="list-style-type: none"> <li>• Understand the standard logistics mode of the company, such as the procedures of loading, access and transport</li> <li>• Understand the latest mode of operation of the industry and its major advantages and disadvantages</li> <li>• Understand the application of software of modelling analysis in the market</li> <li>• Master the concepts, theories and techniques of Workflow Analysis and Work Study</li> <li>• Master the concepts of statistics, probability and distribution of various kinds of data</li> <li>• Know the judgement and usage of the result generated from the software of modelling analysis</li> <li>• Make plans for various long-term repetitive logistics procedures and compare the efficiency and costs of different operation modes so as to optimise the logistics procedure</li> <li>• Know KPI setup and measurement criteria of the market and industry</li> </ul> <p>2. Apply simulation technique to test operation</p> <ul style="list-style-type: none"> <li>• Formulate the course, sequence and time needed for existing or proposed logistics procedures</li> <li>• Divide the logistics process into procedures for critical path analysis or other operational analysis</li> <li>• Use statistical methods to find out necessary parameters or input data</li> <li>• Make logical assumption and use suitable mathematical modelling and random method</li> <li>• Acquire suitable computer software for modelling operation</li> <li>• Try modelling operation based on different assumptions or mathematical modelling types</li> <li>• Use the result of simulation operation to analyse whether the efficiency has been improved</li> <li>• Apply KPI measurement for each critical area to ensure the compliance</li> <li>• Apply KPI to maintain the performance and consistence of operations performance</li> <li>• Apply KPI report to identify the problem areas and improvement areas of the operations</li> </ul> <p>3. Describe outcomes</p> <ul style="list-style-type: none"> <li>• Use the outcomes to describe the actual effectiveness of logistics substitution solution</li> <li>• Define ideal substitution solution</li> <li>• Compile report to describe outcomes</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 work out simulation operation for complex logistics procedures;</li> <li>• Capable to use computer software for simulation operation and analyse the result; and</li> </ul>

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	<ul style="list-style-type: none"><li>• Capable to compile reports to illustrate the result of analysis.</li></ul>
Remark	This UoC is adopted from the Logistics UoCs LOCUOM408A and LOCUOM417A