

Specification of Competency Standards
for the Testing, Inspection and Certification Industry
Unit of Competency

Functional Area - Testing Operations

Title	Select test methods and measuring instruments (biological / microbiological testing)
Code	105800L6
Range	This unit of competency (UoC) covers the abilities to select suitable test methods and equipment/instruments/reagents with justification by critically evaluating test request and relevant test standards for carrying out biological / microbiological testing activities in laboratories.
Level	6
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of test methods and equipment/instruments/reagents for biological / microbiological testing</p> <ul style="list-style-type: none"> • Apply a broad range of test methods available for biological / microbiological testing. • Interpret the requirements of equipment/instruments/reagents in relevant test standard. • Formulate criteria for selection of methods and equipment/instruments/reagents in terms of accuracy, resolution, tolerance, limitations and measurement uncertainty. • Explain the principles, operation and typical applications of equipment/instruments/reagents related to biological / microbiological testing. • Consolidate the knowledge and skills required to operate the equipment/instrument and handle test reagents aseptically, safely and reliably in the laboratory. <p>2. Select test methods and instruments/equipment/reagents for biological / microbiological testing</p> <ul style="list-style-type: none"> • Evaluate customer's test request critically and determine sample characteristics and factors to justify the selection of test method and instrument/equipment/reagent. • Select appropriate test method in accordance with relevant test standard and test request from the customer. • Select the most suitable equipment/instrument/reagents in accordance with the test method and/or test standard. • Set up the equipment/instrument and optimise its performance by adjusting appropriate operating conditions. • Critically evaluate the performance verification and stability checks of the equipment/instrument/reagents and take appropriate actions if any drift in performance is identified. <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Maintain efficient communication with customers. • Ensure appropriate measures are implemented to minimise the health and safety risks associated with biological / microbiological samples and related equipment/instruments/reagents.
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • select and justify appropriate test method by critically evaluating the test request from the customer and interpreting relevant test standard, • select appropriate equipment/instrument/reagent for a particular biological / microbiological test by evaluating the requirements of relevant test method/standard and the sample characteristics, • critically evaluate the performance and stability of the equipment/instrument/reagent appropriate for biological / microbiological testing.

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Remark	
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