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

Functional Area - Testing Operations

Title	Perform microscopic examination
Code	105804L4
Range	This unit of competency (UoC) covers the abilities to set up and adjust the settings of a microscope based on the sample nature for optimum resolution, and operate the microscope to identify and report the sample characteristics in testing laboratories.
Level	4
Credit	2 （For Reference Only）

Competency	Performance Requirements
	1. Possess knowledge of different types of microscopes
	
	• Employ the basic optics and working principles of various types of microscopes including light-, fluorescence- or electronic-microscopes, and different features of specimen slides.
	• Identify the components of the microscope and describe their functions for optimisation of the microscope performance.
	• Explain the operation and application of various microscopes.
	2. Perform microscopic examination
	
	• Review the test request to identify the sample to be examined, and the test method and equipment required for microscopic examination.
	• Select a suitable microscope based on the nature of sample and specific requirements of the test method.
	• Set up and optimise the resolution of the examined image by adjusting the settings of various components of the microscope, including:
	    o magnifying lenses (e.g. eyepieces and objectives),
	    o filters,
	    o alignment of the light path.
	• Place sample correctly on the stage and observe through the microscope to identify and report amount of species present in the sample and their significant characteristics / features.
	3. Exhibit professionalism
	
	• Handle the specimen slide properly to prevent false signal/examination.

Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: • select a suitable microscope according to the nature of sample and the requirements of the test method, • set up the selected microscope and adjust its settings for optimal resolution and performance, • operate the microscope to identify and report significant microscopic characteristics / features of the sample accurately.
Remark	