

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

Functional Area - Testing Operations

Title	Handle and perform equipment calibration
Code	105892L4
Range	This unit of competency (UoC) covers the abilities to carry out calibration of equipment used in the laboratory / on-site testing activities impartially by applying appropriate methods/standards and techniques, and maintain the calibrated equipment by conducting intermediate checks.
Level	4
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of equipment calibration techniques</p> <ul style="list-style-type: none"> • Explain the operating principles of major equipment used in the laboratory. • Employ the principles of equipment calibration. • Apply the concepts of traceability, S.I. unit essentials, fundamentals of reference standards and certified reference materials. • Describe the calibration methods for major equipment. • Identify the requirements of calibration for major laboratory equipment in relevant national and international standards, including but not limited to ISO, AS/NZS, OIML, ASTM, BS, EN and JJG. • Describe the principles and operation of setting up equipment used for calibration. • Apply the principle and mathematical concepts for evaluation of uncertainty for the equipment calibration. • Apply the procedures for conducting intermediate checks of calibrated equipment. <p>2. Perform equipment calibration</p> <ul style="list-style-type: none"> • Apply appropriate calibration methods or standards and set up proper conditions and accessories for calibration of equipment. • Use appropriate equipment, test chamber and test control site, whichever applicable for equipment calibration. • Set up appropriate test conditions for the equipment under calibration. • Carry out equipment calibration impartially using appropriate certified reference materials or reference standards according to relevant methods/standards. • Estimate the uncertainty of calibration. • Record and document equipment calibration results properly. • Carry out intermediate checks, if needed, to maintain confidence in the calibration status of the equipment according to a defined procedure. <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Ensure all calibrations are carried out in accordance with good laboratory practices and in compliance with the required standard.
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • carry out the calibration on equipment impartially according to the requirements of the relevant methods/standards, • analyse calibration results and estimate the uncertainty in calibration, • carry out intermediate checks to maintain confidence in the calibration status of the equipment.
Remark	