

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

Functional Area - Testing Operations

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| Title | Calibrate and maintain reference standards |
| Code | 105889L4 |
| Range | This unit of competency (UoC) covers the abilities to calibrate reference standards against established acceptance criteria and determine the storage conditions in a testing / calibration laboratory. |
| Level | 4 |
| Credit | 2 (For Reference Only) |
| Competency | <p>Performance Requirements</p> <ol style="list-style-type: none"> 1. Possess knowledge of calibrating and storing reference standards <ul style="list-style-type: none"> • Describe the characteristic properties of reference standards. • Select an appropriate calibration technique that the response is stable and sensitivity is large enough for calibration of reference standards. • Select an appropriate control of another reference standard for calibration. • Employ appropriate statistical technique, e.g. student t-test for the evaluation of calibration results. • Apply the concepts of uncertainty to the calibration procedure. 2. Calibrate and maintain reference standards <ul style="list-style-type: none"> • Determine the optimal range of the selected technique. • Perform the calibration of reference standards in accordance with the documented procedures. • Apply appropriate statistical technique to evaluate the calibration results against the pre-established tolerance. • Determine the acceptance of reference standards fit for intended use in the laboratory. • Evaluate the uncertainty of calibration results. • Label reference standards indicating the date of calibration and next calibration date. • Store reference standards in appropriate locations such as dry cabinet, freezer or refrigerator and take measures to maintain their integrity and conditions. 3. Exhibit professionalism <ul style="list-style-type: none"> • Document calibration results and maintain records of calibration of reference standards that meet the requirements of intended application. • Ensure reference standards are calibrated and stored properly. |
| Assessment Criteria | <p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • calibrate reference standards that meet the requirements of intended use in the laboratory, • evaluate the suitability for use of reference standards against the acceptance criteria. |
| Remark | |