

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

Functional Area - Testing Operations

Title	Develop non-standard test methods
Code	105756L5
Range	This unit of competency (UoC) covers the abilities to develop new test methods and procedures that can meet enterprise requirements, regulatory testing requirements and/or customer's test requests in testing laboratories.
Level	5
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of theoretical and practical basis of test/analysis</p> <ul style="list-style-type: none"> <li>• Describe principles and practices of operation of a range of testing equipment.</li> <li>• Describe characteristics, capabilities and limitations of equipment.</li> <li>• Discuss relative advantages/disadvantages of different analytical methods.</li> <li>• Outline theoretical procedures for method development.</li> <li>• Describe method validation requirements.</li> </ul> <p>2. Develop non-standard test methods to meet requirements</p> <ul style="list-style-type: none"> <li>• Interpret enterprise and regulatory testing requirements.</li> <li>• Analyse requirements for new analysis and procedures to meet testing briefs or request.</li> <li>• Evaluate resource requirements for proposed methods/procedures.</li> <li>• Investigate possible alternative methods and procedures and choose appropriate method/procedure by evaluating criteria, e.g.: <ul style="list-style-type: none"> <li>○ economic factors,</li> <li>○ safety considerations,</li> <li>○ resource factors, including equipment and personnel,</li> <li>○ regulatory, accreditation and registration considerations.</li> </ul> </li> <li>• Develop analytical test method to meet requirements.</li> <li>• Trial run method/procedure against test method/procedure requirements.</li> <li>• Validate test method/procedure.</li> <li>• Document analytical method/procedure and associated standard operating procedures (SOPs) and seek approval for issuance.</li> <li>• Issue new method/procedure according to enterprise procedures in consultation with appropriate expert if required.</li> </ul> <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> <li>• Maintain records to substantiate and justify chosen method/procedure.</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> <li>• interpret test requests to determine testing requirements,</li> <li>• develop new test methods and procedures to meet requirements by applying theoretical concepts and practical principles and critically eliminating other possible alternatives,</li> <li>• document and issue new method/procedure according to enterprise procedures.</li> </ul>
Remark	This UoC should be used together with another UoC "Validate test methods (105761L4)".