



Australian Government

Assessment Requirements for AHCARB801 Contextualise diagnostic tests

Release: 1

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Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

It is an industry requirement that competency in this unit requires the analysis of five different diagnostic test results.

The candidate must provide evidence for and demonstrate:

- researching peer reviewed documentation and relevant case studies
- developing competency in correct, functional operation of diagnostic testing equipment
- interpreting the underpinning scientific principles of test processes
- describing the physical and other limits of the testing process
- determining the diagnostic assumptions and limitations of the testing process for the selected diagnostic tool
- analysing quantification, variance and tolerance requirements
- researching calibration baselines and seek verification where required
- verifying appropriate calibration processes have been performed
- selecting one or more appropriate testing processes for each of the primary domains of tree anatomy, physiology, pathology, tree dynamics and the edaphic environment
- contextualising testing for each domain with appropriate selection of diagnostic tools
- defining scientific research method using a basis of hypothesis testing, the measurement of functional relationships, and observational research.
- investigating and determine scientific literature resources referenced by the science of each primary domain
- describing the efficacy of the test in terms of the primary domain
- conceiving and executing a diagnostic test project
- expressing results in performance metrics of selected diagnostic tools
- interpreting results against normal and anticipated ranges
- confirming predictive responses in terms of post treatment to pre treatment results
- articulating meaning of results within context of primary domain
- providing an informed prognosis

- researching management options and lag time
- documenting management plans into report
- monitoring management plans and modify or refine as needed
- use of industry standard terminology to describe arboricultural diagnostic testing processes.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- peer reviewed documentation and case studies
- correct, functional operation of diagnostic testing equipment
- underpinning scientific principles behind the test processes
- physical and other limits of the testing process
- diagnostic assumptions and limitations of tools
- quantification
- baselines
- calibration processes
- tree anatomy
- tree physiology
- tree dynamics
- the edaphic environment of trees
- research methods
- hypothesis testing
- measurement of functional relationships
- verifying efficacy of a test
- performance metrics
- normal anticipated ranges of test result
- scientific research methods
- scientific literature
- diagnostic test projects and processes
- the contextual meaning of tests results
- prognostics
- management of diagnostic outcomes
- management plans
- monitoring management plans.

Assessment Conditions

It is an industry requirement that competency in this unit requires the analysis of a minimum of five different diagnostic test results, one in each of the primary domains of tree anatomy, physiology, pathology, tree dynamics and the edaphic environment.

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - computer
 - word processing software
 - statistical software
 - internet connection
 - diagnostic tools selected for testing
- materials:
 - diagnostic test project
 - diagnostic test project management plan

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>