



Australian Government

**Assessment Requirements for UEECD0037
Provide engineering solutions for uses of
materials and thermodynamic effects**

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including
 - using risk control measures
- completing work and documenting solutions
- completing written justification of solutions
- coordinating work with others
- dealing with unplanned events in accordance with problem-solving techniques and workplace procedures
- inspecting and testing active systems
- obtaining and following work instructions
- obtaining and using tools, equipment and products
- preparing to provide solutions for the uses of materials and thermodynamics
- providing effective solutions to system problems from measurements and calculations
- providing solutions for the uses of materials and thermodynamics
- using sustainable energy practices in accordance with workplace procedures.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- problem-solving techniques
- relevant apparatus, circuits, environment and services
- relevant inspection and testing methods
- relevant manufacturer specifications and operating instructions
- relevant material science and thermodynamics
- relevant measured and calculated values
- relevant job safety assessments or risk mitigation processes
- relevant sustainable energy principles

- relevant tools, equipment, material, products and testing devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace instructions, policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, facilities, tools and equipment currently used in industry
- resources that reflect current industry practices in relation to providing solutions for uses of materials and thermodynamic effects
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>