



**Australian Government**

# **Assessment Requirements for UEEEC0065 Solve problems in basic electronic circuits**

**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, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (WHS/OHS) requirements, workplace procedures and practices, including using risk control measures
- determining the operating parameters of an existing circuit
- altering an existing circuit to comply with specified operating parameters
- developing circuits to comply with a specified function and operating parameters
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment.

## **Knowledge Evidence**

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

- behaviour of electrical/electronic circuits for various values of voltage, current, resistance, impedance, inductance, capacitance and reactance and variable parameters, including:
  - single source circuits
  - series circuit configurations
  - parallel circuit configurations
  - series-parallel circuit configurations
- circuit configurations, including:
  - circuit configurations are single source alternating current (a.c.) and direct current (d.c.) circuits
  - series circuits
  - parallel circuits
  - series-parallel circuits
- connection of test/measuring devices into a circuit, including safety procedures and circuit arrangement of test/measuring devices
- electronics circuit principles

- features of testing/measuring devices, including safety, user calibration and parameter and range settings
- power supplies for electronics circuit principles
- relationship between variable parameter in electrical/electronic circuits, including:
  - variable parameters
  - voltage
  - current
  - resistance
  - impedance
  - inductance
  - capacitance
  - reactance
- relevant manufacturer specifications
- relevant job safety assessments or risk mitigation processes, including safe working practices and solving problems in electronic circuits
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- types of voltage testers, multimeters, clamp meters, continuity testers and insulation resistance testers and their application.

## 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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated 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 other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to solving problems in electronic circuits
- 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>