



Australian Government

UEECD0039 Provide solutions to basic engineering computational problems

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.

Application

This unit involves the skills and knowledge required to provide solutions to engineering computational problems.

It includes applying problem-solving techniques, using a range of mathematical processes and completing documentation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Cross Discipline

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Provide computational solutions to engineering problems

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a given work area are identified, obtained and applied
- 1.2** Scope of problem/s is obtained from documentation and/or from work instructions to determine work

- 1.3 Problems are documented and/or diagrammatic form and appropriate methods identified to resolve them
 - 1.4 Constants and variables to the problem are obtained from measured values and/or problem documentation
 - 1.5 Alternative methods for resolving the problem are considered and, as required, discussed with relevant person/s
 - 1.6 Problems are resolved using mathematical processes in accordance with workplace procedures
- 2 Complete work and documentation**
- 2.1 Justification for solutions used to solve engineering problems is documented in work records in accordance with workplace procedures and relevant industry standards
 - 2.2 Work completion is documented and relevant person/s notified in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

- Engineering diagnosis development and work functions must include at least the following:
- working safety
 - applying problem-solving techniques
 - using a range of mathematical processes
 - provision of electrical/electronic engineering problem solutions
 - solutions justification

Unit Mapping Information

This unit replaces and is equivalent to UEENEEE126A Provide solutions to basic engineering computational problems.

Links

Companion Volume implementation guides are found in VETNet - -

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