



**Australian Government**

**Assessment Requirements for UEECS0027  
Provide programming solution for  
computer systems engineering problems**

**Release: 1**

# Assessment Requirements for UEECS0027 Provide programming solution for computer systems engineering problems

## 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
- determining the engineering programming problem
- developing testing procedures
- identifying problems and errors in code
- preparing to identify computer systems engineering problems and developing programming solutions
- rectifying problems and errors in code
- using key features of programming language.

## 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 manufacturer specifications
- relevant programming fundamentals and high-level language programming, including:
  - complex data types and structures
  - control applications of software
  - interfacing high-level languages to assembler
  - interrupt service routines
  - program development
  - programming concepts, including:
    - programming languages currently used by industry
    - software terminology
- relevant job safety assessments or risk mitigation processes
- relevant tools and software

- 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, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to providing programming solution for engineering problems
- 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>