



Australian Government

Assessment Requirements for UEEIC0012

Develop structured programs to control external devices

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 (OHS) requirements, including implementing risk control measures
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- developing testing procedures
- identifying and correcting anomalies in programs
- identifying and developing structured programs for control sub-systems
- meeting scheduled timeframes
- producing relevant documentation
- testing and documenting structured programs for control sub-systems
- using functions of relevant programming languages
- working with relevant person/s.

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:

- control applications of software
- software terminology
- programming languages currently used by industry
- program development
- programming concepts, including:
 - programming structure
 - documentation
 - compiling source code
 - generating executable files

- scalar and structured data types
- constants variables
- reading from keyboard and writing to screen
- arithmetic, relational and logical operations
- making decisions
- looping operations
- programming to access external devices via input/output (I/O) boards
- functions - macros
- global and local variables, auto and static variables
- intrinsic functions used in control
- writing functions
- linking in external functions to control hardware
- numerical and character arrays
- control programming fundamentals, including:
 - control applications of software
 - software terminology
 - programming languages currently used by industry
 - program development, including flowcharts, pseudocode and algorithms
 - programming concepts
- job safety assessments or risk mitigation processes, including risk control measures
- problem-solving techniques
- relevant manufacturer specifications
- relevant programming languages, functions and applications
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace 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 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
- 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>