



Australian Government

Assessment Requirements for UEEEC0012

Design custom electronic equipment installations

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 one occasion and include:

- developing outlines of alternative designs
- developing the design within the safety and functional requirements and budget limitations
- documenting and presenting design effectively
- successfully negotiating design alteration requests
- obtaining approval for final design
- dealing with unplanned events
- applying relevant risk identification, assessment, reporting and control requirements
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- coordinating work with relevant person/s
- determining scope of design work.

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 range of conditions and include knowledge of:

- custom electronic equipment installation design, safe working practices and relevant standards, codes and regulations, including:
 - integrated audio systems:
 - types of audio control and switching devices
 - types of surround sound systems
 - operation of system control circuits, including the remote device
 - video and display set-up:
 - projectors encompassing:
 - aspect ratio
 - screen size

- orientation
 - throw distance, vertical elevation and horizontal orientation
- direct view monitors adjustments
- audio/video control equipment:
 - types of control devices and their operating principles
 - control equipment arrangement in an audio/video system
- technical standards, regulations and codes for extra-low voltage (ELV) work:
 - limitation imposed by regulations
 - how to read and apply a standard
 - aspects of technical standards that apply to ELV work
- environmental and heritage awareness:
 - purpose of environmental and heritage regulation
 - typical issues affecting electrotechnology services and systems
 - meeting requirements
- acoustics, spatial treatment and sound reproduction:
 - effects of room dimensions, spatial shape and surface textures on acoustics
 - ideal acoustic for specific purposes - speech, solo or small group music, rock music, orchestral music, choral music and cinema
 - measuring room response
 - speaker placement and room response
 - room treatment methods to improve acoustic response
 - active methods to improve acoustic response
- equipment installation design:
 - requirements
 - limitations
 - procedures
 - documentation
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements.

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, equipment and personal protective equipment (PPE) currently used in industry
- resources that reflect current industry practices in relation to designing custom electronic installations
- 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>