



Australian Government

UEEIC0035 Set up scientific analysis measuring and control instruments

Release: 1

UEEIC0035 Set up scientific analysis measuring and control instruments

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 set up scientific analysis measuring and control instruments.

It includes working safely, preparing and setting up scientific measuring instruments, applying calibration procedures and reporting activities.

Permits may be required for some work environments, such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.

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

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEIC0047 Use instrumentation drawings, specifications, standards and equipment manuals and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Instrumentation & Control

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Prepare to arrange scientific analysis measuring instruments

- 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 understood
- 1.2** WHS/OHS risk control measures and workplace procedures are followed in preparation for work
- 1.3** Safety hazards that have not previously been identified are noted and risk control measures implemented
- 1.4** Relevant person/s is consulted to ensure work is coordinated effectively with others involved on worksite
- 1.5** Measurement parameters are identified by reviewing process requirements and instrument manufacturer instructions
- 1.6** Tools, equipment and testing devices required for work are obtained in accordance with workplace procedures and checked for correct operation and safety
- 1.7** Preparatory work is checked to ensure no damage has occurred and work is in accordance with industry standards
- 1.8** Need to test and measure live work is determined in accordance with WHS/OHS requirements and workplace procedures
- 1.9** Circuits/machines/plant are checked and isolated in accordance with WHS/OHS requirements and workplace procedures

2 Arrange scientific analysis measuring instruments

- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
- 2.2** Testing/measuring devices are connected and arranged in accordance with relevant industry standards and control system
- 2.3** Measuring instruments are arranged and adjusted in accordance with workplace procedures and instrument

	manufacturer instructions
2.4	Methods for dealing with unplanned situations are discussed with relevant person/s and documented
2.5	Unplanned situations are dealt with safely and with approval of relevant person/s
2.6	Work is carried out efficiently without waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy principles
3 Complete and report arrangement activities	
3.1	WHS/OHS risk control work completion measures and workplace procedures are followed
3.2	Worksite is cleaned and made safe in accordance with workplace procedures
3.3	Adjustment settings are 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.

Setting up and adjusting measuring and control instruments must include at least two of the following:

- scientific analysis measuring instruments

Unit Mapping Information

This unit replaces and is equivalent to UEENEEI133A Set up scientific analysis measuring and control instruments.

Links

Companion Volume implementation guides are found in VETNet - -

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

Assessment Requirements for UEEIC0035 Set up scientific analysis measuring and control instruments

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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
 - using risk control measures
- arranging and adjusting measuring instruments in accordance with workplace procedures and manufacturer instructions
- carrying out work without waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy practices
- checking preparatory work to ensure no damage has occurred
- consulting with relevant person/s to coordinate work with others
- dealing with unplanned situations by discussing with relevant person/s and documenting in accordance with WHS/OHS requirements
- documenting adjustment settings and notifying relevant person/s in accordance with workplace procedures
- identifying measurement parameters
- obtaining and checking tools, equipment and testing devices
- preparing scientific analysis measuring instruments
- testing and measuring live work in accordance with WHS/OHS requirements and workplace procedures.

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:

- problem-solving techniques
- relevant circuits/machines/plant
- relevant communications protocols
- relevant isolation procedures
- relevant job safety assessments or risk mitigation processes

- relevant manufacturer specifications and operating instructions
- relevant materials, apparatus, environment and services
- relevant measurement parameters
- relevant measuring instruments
- relevant scientific analysis industry standards
- relevant tools, equipment and testing devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace instructions, policies and procedures
- sustainable energy principles.

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 setting up process measuring and control instruments for scientific analysis
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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