

## **UEE06 Electrotechnology (revised)**

The competencies contained within the Electrotechnology Training Package are diverse covering tasks within a number of industries including mining, manufacturing, electricity, gas and water supply, construction and communication services. The intent of the Electrotechnology Training Package is to describe the skills and knowledge relevant to roles within the field of electrotechnology. It supports training for organisations and individuals seeking formal recognition of their skills and knowledge.

The first electrotechnology Training Package (UTE99) was endorsed by the National Training Framework Committee on 2 July 1999. This Training Package went through 4 version changes; the first in May 2001, the second in March 2003, the third in March 2004 and the fourth in March 2004.

The Phase 1 review of UTE99 by the ElectroComms and Energy Utilities Industry Skills Council in early 2003 identified a number of areas within the units of competency, assessment guidelines and qualifications that needed to be addressed in the re-development phase of the Training Package.

An evaluation teleconference with State Training Authorities (STAs) representatives was held on 2 June 2005, to evaluate the four EE-Oz revised Training Packages – Gas, Transmission & Distribution, Generation and Electrotechnology. All four Training Packages were rejected for progress towards National Quality Council endorsement due to a range of major quality and structural issues:

- Unsatisfactory editing of the Training Packages;
- Disagreement on packaging the Essential Knowledge and Skills components of a unit of competency into a separate volume in order to reduce the size of the Electrotechnology Training Package units;
- Insufficient mapping advice;
- A policy position to be agreed on pre-requisites, co-requisites and delivery advice.

Following this evaluation meeting, the ElectroComms and Energy Utilities Industry Skills Council (ISC) attempted to work with STAs to address the issues raised however only limited progress was achieved. In September 2005, the ISC sought assistance from DEST to progress the evaluation and endorsement process for the Training Package. DEST engaged an independent consultant to undertake a “structural” review of the draft Training Package. In February 2006, in the Structural Review Report, the consultant recommended three major categories of issues needed addressing – structural, technical, policy and terminology/language. DEST considered the report and forwarded it to the ISC with a recommendation that it be accepted. The ISC agreed with the recommendations however, the National Electrical and Communication Association (NECA) raised several issues which the ISC

Board agreed to address including the establishment of an Implementation Panel to oversee the agreed amendments to the Training Package.

The Implementation Panel met on 12 July 2006, 12 September 2006 and also on 26 September 2006 and agreed to forward the draft revised Electrotechnology Training Package to the NQC for endorsement.

The NQC paper recommends that the NQC endorse and submit to Ministers the revised UEE06 Electrotechnology Training Package with the following conditions:

- A review of the Training Package takes place by 31 December 2008.
- Part one Recommendations from the Structural Review Report will be completed by 31 December 2006 and, subject to agreement by the Implementation Panel, incorporated into the Training Package and submitted to the NQC for endorsement by 28 February 2007.

Part one Recommendations from the Structural Review Report: that the Training Package is professionally edited with a view to:

- Correcting the inconsistencies within the units of competency;
- Deleting the repetition and contradiction within the assessment guidelines;
- Providing a consistent use of language within the Training Package;
- Reviewing the pre-requisite chains to ensure that they are valid and correct; and
- Reviewing the qualification structures to ensure that they are valid and correct.

- Part two Recommendations from the Structural Review Report will be completed by 30 July 2007 and; subject to agreement by the Implementation Panel, incorporated into the Training Package and submitted to the NQC for endorsement by 30 September 2007.

Part two Recommendations from the Structural Review Report: that the Training Package is examined as part of the continuous improvement process to cover the following aspects:

- Review the prescriptive detail of the Essential Knowledge and Associated Skills (EKAS);
- Monitor, review and action the recommendations of the Technical Advisory Committee of the National Electrotechnology Training Advisory Group relating to the qualifications framework in computer systems, electronics and communications within the electronic discipline;
- Incorporate those competencies from other endorsed Training Packages that have been duplicated in this UEE06 Training Package;
- Incorporate the appropriate employability skills; and
- Incorporate the outcomes of policy decisions made by DEST and the STAs.

- By 30 December 2007, the Implementation Panel will recommend an approach to the National System, via DEST, on how the policy issues within the scope of Implementation Panel in Part three Recommendations may be addressed.

Part three Recommendations of the Structural Review Report:

- Identifying the target audience of the Training Package and determine whether the structure and language within the Training Package is appropriate for the audience;
- Determining the acceptance of the concept and application of the EKAS as a separate component within the endorsed components of a Training Package;
- Determining the acceptance of new terminology such as “essential knowledge and associated skills” and “competency standard units”;
- Identifying and promulgating the definitions of terms such as pre-requisite, co-requisite and concurrency;
- Examining whether the current preparation of the Training Package as a print ready document is appropriate given the technology available today; and
- Reviewing the current Training Package Development Handbook and determine its status in relation to the development and review of the Training Package.

The revised UEG06 Electrotechnology Training Package was endorsed by the NQC on 8 November 2006.

**Qualification outcomes:**

Certificate I

UEE10106 [Certificate I in ElectroComms Skills](#)

Certificate II

UEE20106 [Certificate II in Air-conditioning Split Systems](#)

UEE20206 [Certificate II in Business Equipment Servicing](#)

UEE20406 [Certificate II in Winding and Assembly](#)

UEE20506 [Certificate II in Computer Assembly and Repair](#)

UEE20606 [Certificate II in Custom Electronics Assembly and Setup](#)

UEE20706 [Certificate II in Data and Voice Communications](#)

UEE20906 [Certificate II in Electronic Assembly](#)

UEE21005 [Certificate II in Fire Alarms Servicing](#)

UEE21106 [Certificate II in Gaming Machines Servicing](#)

UEE21206 [Certificate II in Antennae Equipment](#)

UEE21306 [Certificate II in Remote Area Essential Service](#)

UEE21406	<a href="#">Certificate II in Remote Area Power Supply Maintenance</a>
UEE21506	<a href="#">Certificate II in Renewable Energy</a>
UEE21606	<a href="#">Certificate II in Security Assembly and Setup</a>
UEE21706	<a href="#">Certificate II in Technical Support</a>
UEE21806	<a href="#">Certificate II in Appliance Servicing - Refrigerants</a>
UEE21906	<a href="#">Certificate II in Electronics</a>
UEE22006	<a href="#">Certificate II in Electrotechnology (Career Start)</a>
UEE22106	<a href="#">Certificate II in Sustainable Energy (Career Start)</a>

### Certificate III

UEE30106	<a href="#">Certificate III in Business Equipment</a>
UEE30206	<a href="#">Certificate III in Computer Equipment</a>
UEE30306	<a href="#">Certificate III in Custom Electronics Installations</a>
UEE30406	<a href="#">Certificate III in Data and Voice Communications</a>
UEE30506	<a href="#">Certificate III in Appliance Servicing</a>
UEE30606	<a href="#">Certificate III in Electrical Machine Repair</a>
UEE30706	<a href="#">Certificate III in Switchgear and Control Gear</a>
UEE30806	<a href="#">Certificate III in Electrotechnology Electrician</a>
UEE30906	<a href="#">Certificate III in Electronics and Communications</a>
UEE31006	<a href="#">Certificate III in Fire Protection Control</a>
UEE31106	<a href="#">Certificate III in Gaming Electronics</a>
UEE31206	<a href="#">Certificate III in Instrumentation and Control</a>
UEE31306	<a href="#">Certificate III in Refrigeration and Air-Conditioning</a>
UEE31406	<a href="#">Certificate III in Security Equipment</a>
UEE31506	<a href="#">Certificate III in Rail - Communications and Networks</a>
UEE31706	<a href="#">Certificate III in Hazardous areas - Electrician</a>
UEE31806	<a href="#">Certificate III in Hazardous areas - Instrumentation</a>
UEE31906	<a href="#">Certificate III in Explosion-protected equipment overhaul</a>

### Certificate IV

UEE40106	<a href="#">Certificate IV in Computer Systems</a>
UEE40206	<a href="#">Certificate IV in Electrical - Data and Voice Communications</a>
UEE40306	<a href="#">Certificate IV in Electrical Installation Inspection and Audits</a>
UEE40406	<a href="#">Certificate IV in Electrical - Instrumentation</a>
UEE40506	<a href="#">Certificate IV in Electrical - Air-Conditioning Systems</a>
UEE40606	<a href="#">Certificate IV in Electrotechnology - Systems Electrician</a>
UEE40706	<a href="#">Certificate IV in Electronics and Communications</a>

UEE40806	<a href="#"><u>Certificate IV in Electrical - Fire Protection Control Systems</u></a>
UEE40906	<a href="#"><u>Certificate IV in Industrial Electronics and Control</u></a>
UEE41006	<a href="#"><u>Certificate IV in Energy Management and Control</u></a>
UEE41106	<a href="#"><u>Certificate IV in Electrical - Lift Systems</u></a>
UEE41206	<a href="#"><u>Certificate IV in Electrical - Rail Signalling</u></a>
UEE41306	<a href="#"><u>Certificate IV in Refrigeration and Air-Conditioning Servicing</u></a>
UEE41406	<a href="#"><u>Certificate IV in Refrigeration and Air-Conditioning Systems</u></a>
UEE41506	<a href="#"><u>Certificate IV in Video and Audio Systems</u></a>
UEE41606	<a href="#"><u>Certificate IV in Renewable Energy</u></a>
UEE41706	<a href="#"><u>Certificate IV in Rail - Communications and Network Systems</u></a>
UEE41806	<a href="#"><u>Certificate IV in Hazardous areas</u></a>

#### Diploma

UEE50106	<a href="#"><u>Diploma of Computer Systems Engineering</u></a>
UEE50206	<a href="#"><u>Diploma of Electrical and Instrumentation</u></a>
UEE50306	<a href="#"><u>Diploma of Electrical and Refrigeration and Air-Conditioning</u></a>
UEE50406	<a href="#"><u>Diploma of Electrical Engineering</u></a>
UEE50506	<a href="#"><u>Diploma of Electronics and Communications Engineering</u></a>
UEE50606	<a href="#"><u>Diploma of Refrigeration and Air-Conditioning Engineering</u></a>
UEE50706	<a href="#"><u>Diploma of Renewable Energy Engineering</u></a>
UEE50806	<a href="#"><u>Diploma of Research and Development</u></a>
UEE50906	<a href="#"><u>Diploma of Industrial Electronics and Control Engineering</u></a>

#### Advanced Diploma

UEE60106	<a href="#"><u>Advanced Diploma of Electrical Engineering</u></a>
UEE60206	<a href="#"><u>Advanced Diploma of Electronics and Communications Engineering</u></a>
UEE60306	<a href="#"><u>Advanced Diploma of Electrical/Electronic - Technology</u></a>
UEE60406	<a href="#"><u>Advanced Diploma of Computer Systems Engineering</u></a>
UEE60506	<a href="#"><u>Advanced Diploma of Computer Systems - Technology</u></a>
UEE60606	<a href="#"><u>Advanced Diploma of Industrial Electronics and Control Engineering</u></a>
UEE60706	<a href="#"><u>Advanced Diploma of Refrigeration and Air-Conditioning Engineering</u></a>
UEE60806	<a href="#"><u>Advanced Diploma of Refrigeration and Air-Conditioning - Technology</u></a>
UEE60906	<a href="#"><u>Advanced Diploma of Renewable Energy Engineering</u></a>
UEE61006	<a href="#"><u>Advanced Diploma of Renewable Energy - Technology</u></a>

UEE61106 [Advanced Diploma of Automated Systems Maintenance Engineering](#)

UEE61206 [Advanced Diploma of Engineering - Explosion protection](#)

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