Assessment and Reporting in Electrotechnology Stage 6

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This document contains the Board of Studies' requirements for assessing and reporting achievement in courses in the Electrotechnology Curriculum Framework for the Higher School Certificate, and provides details of the HSC examination for Electrotechnology. From time to time changes are made to HSC assessment and examination requirements. Such changes will be made available through updates to this document. Please note that the version on the Board of Studies website is always the current version.
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Assessment in Stage 6
Assessment is the process of gathering information and making judgements about student achievement for a variety of purposes. In the HSC, those purposes include:
- assisting student learning
- evaluating and improving teaching and learning programs
- providing evidence of satisfactory achievement
- providing Higher School Certificate results.

For HSC VET courses, they also include:
- confirming whether an individual can perform to the standards expected in the workplace, as expressed in the relevant endorsed unit of competency
- determining eligibility for Australian Qualifications Framework (AQF) VET qualifications.

Reporting achievement in the HSC
The Higher School Certificate credentials received by students are used by the Board to report satisfactory completion of courses within the Electrotechnology Curriculum Framework. Each course will be listed on the HSC Record of Achievement together with the HSC unit credit value. The Record of Achievement will also refer to separate vocational documentation.

For students who have fulfilled the requirements of an AQF VET qualification, the vocational documentation will consist of the relevant Certificate and an accompanying Transcript of Competencies Achieved. Students who have achieved partial completion of an AQF VET qualification will receive a Statement of Attainment, which lists all units of competency achieved towards the qualification.

For students who have completed the Electrotechnology (240 indicative hours) course and who undertake the Electrotechnology HSC examination, the HSC Record of Achievement will show:
- an examination mark derived from the HSC external examination
- an HSC mark, equal to the examination mark
- a performance band, determined by the HSC mark.
Student performance in the HSC examination is also reported against standards on a course report. The course report contains a performance scale describing levels (bands) of achievement, an HSC mark located on the performance scale, and an examination mark. The course report also shows, graphically, the statewide distribution of HSC examination marks of all students who undertake the examination.

The distribution of marks is determined by students’ performances against the standards and is not scaled to a predetermined pattern of marks.

**Competency-based assessment**

The courses within the Electrotechnology Curriculum Framework are competency-based courses. The courses can only be delivered by a Registered Training Organisation (RTO). The Board of Studies and the VET Quality Framework requires that a competency-based approach to assessment is used. Assessment must meet the requirements of the *Electrotechnology Training Package (UEE11)*.

In a competency-based course, assessment of competencies is standards-referenced. This means that a participant’s performance is judged against a prescribed standard contained in each unit of competency, not against the performance of other participants.

The purpose of assessment is to judge competence on the basis of the performance criteria set out under each element of competency. A participant is judged either 'competent' or 'not yet competent'. This judgement is made on the basis of a range of evidence, which may be in a variety of forms.

Competency-based assessment focuses on the requirements of the workplace. Competence incorporates all aspects of work performance, including problem-solving and the capacity to apply knowledge and skills in both familiar and new situations. Assessment of competence involves the assessment of skills and knowledge combined.

It is not necessary, nor is it desirable, for individual performance criteria to be demonstrated separately for assessment purposes. Rather, assessors should adopt an integrated or holistic approach to assessment. This means that a number of elements of competency or even several units of competency are assessed together. This method of assessment is strongly recommended because the concept of competence involves the integration of a wide range of skills, knowledge and attitudes.

The evidence guide in a unit of competency identifies the specific skills and knowledge required to demonstrate achievement of the unit of competency.

**Training Package requirements**

To achieve an AQF VET Certificate or Statement of Attainment, a student or worker must be assessed as competent according to the requirements set out in the national Training Package. A qualified assessor under the auspices of the RTO that is to issue the qualification must conduct the assessment.
Assessment guidelines

The assessment guidelines of a Training Package are part of the mandatory components of the package.

The role of the assessment guidelines is to set out principles and provide guidance that ensure fair, valid and consistent assessment.

The assessment guidelines in the Electrotechnology Training Package (UEE11) set out information on:
- the assessment system
- VET Quality Framework assessment requirements
- assessment pathways
- designing assessment tools
- conducting assessment
- assessment resources.


In addition to the assessment guidelines, the Training Package contains an evidence guide for the assessment of each unit of competency within courses in the Framework.

Using qualified assessors

The Training Package specifies that a qualified assessor must conduct the assessment.

The VET Quality Framework specifies mandatory competency requirements for assessors. Standard SNR15 from the Standards for NVR Registered Training Organisations is as follows:

15.4 Training and assessment are conducted by trainers and assessors who:
   a) have the necessary training and assessment competencies as determined by the National Quality Council or its successors; and
   b) have the relevant vocational competencies at least to the level being delivered or assessed; and
   c) can demonstrate current industry skills directly relevant to the training/assessment being undertaken; and
   d) continue to develop their vocational education and training (VET) knowledge and skills as well as their industry currency and trainer/assessor competence.

All assessors who are engaged in assessing units of competency from the Electrotechnology Training Package (UEE11) must be either:
- employed by an RTO
- acting under the registration of an RTO (for example, a teacher working at a delivery site of a school sector RTO).
The Electrotechnology HSC examination

Students who have completed the Electrotechnology (240 indicative hours) course are eligible to sit for the Electrotechnology HSC examination. Students who want to sit for the Electrotechnology HSC examination must be entered for both the Electrotechnology course and the Electrotechnology examination on Schools Online (Administration).

Students who undertake the examination can have their HSC examination mark contribute to the Australian Tertiary Admission Rank (ATAR). The Electrotechnology HSC examination mark can contribute up to two units towards the calculation of a student’s ATAR. Further information about the ATAR is available on the Universities Admission Centre (UAC) website at www.uac.edu.au/undergraduate/atar/.

The external HSC examination provides a measure of student achievement across a range of the mandatory syllabus outcomes and content that can be reliably measured in an examination setting. The external examination and its marking relate to syllabus standards by:

- providing clear links to the examinable syllabus outcomes and content
- enabling students to demonstrate the levels of achievement outlined in the course performance scale for the examination
- applying marking guidelines based on criteria that relate to the quality of the response
- aligning performance in the examination each year to the standards established for the examination.

Estimated examination mark

The Board of Studies requires schools/RTOs to submit an estimated examination mark for all students entered for the Electrotechnology HSC examination. This mark is to be an estimate of likely performance in the HSC examination and will reflect each student’s achievement of tasks similar to the HSC examination, such as a trial HSC examination. The estimated examination mark is not reported and will be taken into account only in the case of an upheld illness/misadventure appeal. Refer to the Board of Studies Assessment Certification Examination (ACE) website for further information.
Electrotechnology HSC examination specifications

The examinable outcomes and content for the Electrotechnology HSC examination are contained in the *Electrotechnology Curriculum Framework Stage 6 Syllabus*.

The examination will consist of a written paper worth 80 marks. The examination mark for each candidate will be converted to a mark out of 100.

Time allowed: 2 hours plus 5 minutes reading time.

The paper will consist of four sections.

**Section I** (15 marks)
- There will be objective response questions to the value of 15 marks.

**Section II** (35 marks)
- There will be approximately five short-answer questions.
- Questions may contain parts.
- There will be approximately 12 items in total.
- At least two items will be worth from 4 to 8 marks.

**Section III** (15 marks)
- There will be one extended response question.
- The question will have an expected length of response of around four pages of an examination writing booklet (approximately 600 words).

**Section IV** (15 marks)
- There will be one structured extended response question.
- The question will consist of two or three parts, with one part worth at least 8 marks.
- The question will have an expected length of response of around four pages of an examination writing booklet (approximately 600 words) in total.

The HSC examination in Electrotechnology is based on the HSC Content (focus areas) and employability skills for the Certificate II qualifications.
Relationship of the Electrotechnology (240 indicative hours) course structure to the HSC examination

HSC units of competency

HSC Content

HSC examination
one common examination

Mandatory units of competency

HSC focus areas
- Components, tools and equipment
- Direct current circuits
- Drawings, diagrams and compliance
- Safety
- Sustainability
- Working in the industry

Section I
15 objective response questions

Section II
short-answer questions

Section III
one extended response question

Section IV
one structured extended response question

HSC elective units of competency

no HSC Content

not examinable

Resources and advice
Further guidance and advice related to assessment and the HSC examination in Electrotechnology Stage 6 can be found on the Board’s website at www.boardofstudies.nsw.edu.au/syllabus_hsc/electrotechnology.html.