



B O A R D O F S T U D I E S
N E W S O U T H W A L E S

**Electrotechnology
Curriculum Framework
Stage 6 Draft Syllabus**

Consultation Report

September 2007

© 2007 Copyright Board of Studies NSW for and on behalf of the Crown in right of the State of New South Wales.

This document contains Material prepared by the Board of Studies NSW for and on behalf of the State of New South Wales. The Material is protected by Crown copyright.

All rights reserved. No part of the Material may be reproduced in Australia or in any other country by any process, electronic or otherwise, in any material form or transmitted to any other person or stored electronically in any form without the prior written permission of the Board of Studies NSW, except as permitted by the *Copyright Act 1968*. School students in NSW and teachers in schools in NSW may copy reasonable portions of the Material for the purposes of bona fide research or study. Teachers in schools in NSW may make multiple copies, where appropriate, of sections of the HSC papers for classroom use under the provisions of the school's Copyright Agency Limited (CAL) licence.

When you access the Material you agree:

- to use the Material for information purposes only
- to reproduce a single copy for personal bona fide study use only and not to reproduce any major extract or the entire Material without the prior permission of the Board of Studies NSW
- to acknowledge that the Material is provided by the Board of Studies NSW
- not to make any charge for providing the Material or any part of the Material to another person or in any way make commercial use of the Material without the prior written consent of the Board of Studies NSW and payment of the appropriate copyright fee
- to include this copyright notice in any copy made
- not to modify the Material or any part of the Material without the express prior written permission of the Board of Studies NSW.

The Material may contain third-party copyright materials such as photos, diagrams, quotations, cartoons and artworks. These materials are protected by Australian and international copyright laws and may not be reproduced or transmitted in any format without the copyright owner's specific permission. Unauthorised reproduction, transmission or commercial use of such copyright materials may result in prosecution.

The Board of Studies has made all reasonable attempts to locate owners of third-party copyright material and invites anyone from whom permission has not been sought to contact the Copyright Officer, ph (02) 9367 8289, fax (02) 9279 1482.

Material on p 8 from *Securing Their Future* © NSW Government 1997.

Published by
Board of Studies NSW
GPO Box 5300
Sydney NSW 2001
Australia

Tel: (02) 9367 8111
Fax: (02) 9367 8484
Internet: www.boardofstudies.nsw.edu.au

September 2007

ISBN 978 174147 7719

2007482

Contents

1	Background.....	5
1.1	Survey responses	5
1.2	Profile of structured sample groups.....	7
1.3	Profile of structured teleconference.....	
1.4	Profile of additional sample groups.....	
2	Qualitative analysis of the survey	8
2.1	Rationale.....	8
2.2	Course structures	8
2.3	Assessment requirements and advice	9
2.4	Students with special education needs	9
2.5	AQF qualification packaging rules.....	9
2.6	HSC requirements and advice and HSC examination.....	9
2.7	Overall comments.....	10
3	Key issues raised in consultation and actions taken	12
4	Written responses.....	26

1 Background

The preparation of the Draft Electrotechnology Curriculum Framework adhered to the process for framework revisions and amendments approved by the Board in June 2006.

The Draft Electrotechnology Curriculum Framework was distributed widely for comment over the period 25 May to 22 June 2007.

Copies of the Draft Electrotechnology Curriculum Framework were distributed to all NSW secondary schools and TAFE colleges and the VET consultative network.

Modifications to this draft, following widespread consultations, have enabled the new Electrotechnology Curriculum Framework to be finalised for submission to the Industry Curriculum Committee, the VET Advisory Committee and the Board.

The responses in sections 1.1, and 2 are based only on the 6 surveys completed on line. These alone do not reflect the general consensus of the responses received during the entire consultation process. The consultation report should be read in its entirety inclusive of survey, consultation meeting and other responses made during the period 25 May to 22 June 2007.

1.1 Survey responses

Six (6) survey responses to the consultation in Electrotechnology were received by 22 June 2007.

The sample profile of survey respondents is as follows:

Individual responses

There were 3 individual responses: 2 from schools, 0 from TAFE NSW and 1 other.

School responses

classroom teacher	1	head of department	1	school executive	0
principal	0	nil response	0		
up to 3 years teaching	0	4–9 years teaching	0	10–15 years teaching	1
16+ years teaching	0	nil response	1		
Sydney metropolitan area	2	other town or city	0	rural area	0
nil response	0				
government	2	non-government	0	nil response	0

Other responses

parent group	0	community group	0	business	1
university	0	professional association	0	industry body	0
organisation	0	school sector	0	other	0
nil response					
<hr/>					
local	1	state	0	national	0
nil response	0				

Group responses

There were 3 group responses: 3 from TAFE NSW.

TAFE NSW responses

teacher	1	head teacher	0	faculty manager	1
TAFE institute consultant	1	curriculum centre program manager	0	college director	0
institute director	0	nil response	0		
<hr/>					
Sydney metropolitan area	1	other town or city	0	rural area	2
nil response	0				

The major issues raised in the consultation are addressed in Section 4 of this report.

1.2 Profile of structured sample groups

Three (3) structured sample group meetings were conducted. These meetings were held in, Wollongong, Newcastle and Sydney city. The participant profile is as follows:

School	8	TAFE NSW	10	Other	7
Location of school/TAFE					
Sydney metropolitan area	6	Other town or city	14	Rural area	5
Type of school					
government	5	non-government	3		
Position in school					
classroom teacher	3	head of department	1	school executive	3
principal	1	nil response	0		
Total years teaching					
Up to 3 years	0	10–15 years	2	nil response	2
4–9years	2	16+ years	2		
Position in TAFE					
teacher	0	head teacher	3	faculty manager	2
TAFE institute consultant	2	curriculum centre program manager		college director	0
institute director	0	nil response	1		
Years teaching TVET Electrotechnology					
2001	0	2002	0	2003	0
2004	0	2005	1	2006	1
2007	1	never	5	nil response	2
Other participants					
parent group	0	community group	0	business	0
university	0	professional association	0	industry body	0
organisation	0	school sector	7	other	0
nil response	0				
local	8	state	1	national	0
nil response	0				

1.3 Profile of structured teleconference groups

Two (2) structured teleconferences were conducted. One teleconference was held in the morning and the other was held in the afternoon. The participant profile is as follows:

School	0	TAFE NSW	3	Other	1
Location of school/TAFE					
Sydney metropolitan area	0	other town or city	2	rural area	2
Type of school					
government	0	non-government	0		
Position in school					
classroom teacher	0	head of department	0	school executive	0
principal	0	nil response	0		
Total years teaching					
Up to 3 years	0	10–15 years	0	nil response	0
4–9years	0	16+ years	0		
Position in TAFE					
teacher	1	head teacher	1	faculty manager	1
TAFE institute consultant	0	curriculum centre program manager	0	college director	0
institute director	0	nil response	0		
Years teaching TVET Electrotechnology					
2001	2	2002	1	2003	1
2004	1	2005	1	2006	1
2007	1	nil response	2		
Other participants					
parent group	0	community group	0	business	0
university	0	professional association	0	industry body	0
organisation	0	school sector	1	other	0
nil response	0				
Nature of other participants group/organisation					
local	1	state	0	national	0
nil response	0				

1.4 Profile of additional sample group

One (1) additional sample group meeting was conducted at St George TAFE. This meeting was organised by NSW TAFE. The participant profile is as follows:

School	0	TAFE NSW	7	Other	0
Location of TAFE					
Sydney metropolitan area	7	other town or city	0	Rural area	0
Position in TAFE					
teacher	1	head teacher	6	faculty manager	0
TAFE institute consultant	0	curriculum centre program	0	college director	0
institute director	0	nil response	0		
Years teaching TVET Electrotechnology					
2001	4	2002	4	2003	4
2004	4	2005	4	2006	4
2007	4	never	2	nil response	1

2 Qualitative analysis of the survey

2.1 Rationale

Respondents indicated satisfaction with the rationale's explanation of the purpose of Electrotechnology in the NSW Higher School Certificate. This was represented by 83% approval rate¹.

'...it is important to state that the two main careers to mention are the licensed trades, namely Electrical and Refrigeration and Air-conditioning..... would also suggest that the word worker be replaced with technician.' Survey # 6.

2.2 Course structures

This section describes how the units of competency are arranged for the purpose of HSC credit. The statements provide advice on the purpose, structure, requirements and qualifications for each of the courses within the Framework.

Respondents indicated support for the format (approval rate 66%), agreeing that the information was clearly presented and easy to understand.

Further to this, 50% of respondents agreed the proposed course structures enabled flexibility to plan and deliver programs that maximised student learning. One respondent was unsure about all aspects.

The range of courses proposed within the Electrotechnology Curriculum Framework received a positive response:

- 66% of respondents agreed the 120-hour course provides students with the opportunity to develop basic Electrotechnology knowledge and skills.

'120 hour course is embedded in the 240 hour course enabling students [who decide] to continue their study.' Response # 8

- 50% approval for the 240-hour course designed to provide students with the opportunity to gain knowledge and skills to enable the individual to commence a career and be an effective employee in the Electrotechnology industry
- 50% approval for the 240-hour school-based apprenticeship course designed to provide students with the opportunity to gain a statement of attainment towards Certificate III
- 50% (approval rate) of respondents indicated support for the availability of an Electrotechnology school-based apprenticeship specialisation.

Comments included:

'Allowing students/RTOs choice [within competency fields of electives] to build a broad base of knowledge is to be commended.' Survey #1

'The examples shown are fair and give a clear understanding of the [Training Package] requirements.' Response #17

One respondent disagreed with all of Section 6, and one respondent gave an unsure response to all statements.

¹ Approval rate indicates that the respondent selected 'strongly agree' or 'agree'.

The following issues were raised during consultation:

- the work placement component/180 days on-the-job component of the School-based apprenticeship. Survey # 3
- introduction of UAI options supported. Survey # 3
- allowing students/RTOs choice [within competency fields of electives] to build a broad base of knowledge is to be commended. Survey # 1

The major issues raised in the consultation are addressed in Section 3.

2.3 Assessment requirements and advice

Section 11 of Part A of the Syllabus briefly outlines assessment requirements for the Higher School Certificate (including HSC examination specifications) and the Training Package. There was a positive response to this section of the syllabus. 83% (approval rate) of the respondents agreed that the assessment requirements were satisfactorily outlined. Comment:

‘It is essential to have a common base for training and assessment.’ Survey # 2

‘..I would suggest that students are made aware of the fact that units of competency are made up of two parts, namely knowledge and skills and work performance.’ Survey # 6

2.4 Students with special education needs

Section 13 of Part A of the Syllabus provides information on the ways in which VET courses are able to meet the needs of a broad range of students, including those with special education needs.

66% of respondents were unsure that courses within the Electrotechnology Curriculum Framework could be adapted to meet the needs of students with special education needs. Comments included:

‘dependent on the type of disability. For example, previous TVET special needs students have successfully completed course and gained apprenticeship post school.’ Survey # 3

‘...after consultation with the student about the course chosen.’ Survey # 2.

‘relies on local situation’. Survey # 1.

The major issues raised in the consultation are addressed in Section 4.

2.5 AQF qualification packaging rules

This section has been included so that the minimum requirements for achieving qualifications available in the Electrotechnology Curriculum Framework are clear.

83% of respondents were in agreement that the qualification packaging rules were clear and easy to understand.

‘Certificate II Career Start options will suit most students undertaking this course. Seems to meet the needs of employers who are looking for the equivalent pre-vocational course in this field. Given the safety issues related to working with electricity, this seems a reasonable approach.’ Response # 10

2.6 HSC requirements and advice and HSC examination

Part B reproduces the text of each unit of competency directly from the Training Package as well as providing associated HSC requirements and advice for the examinable units of competency.

The majority of respondents were satisfied with content layout and formatting of Part B, agreeing that there is a clear relationship between the unit of competency and the HSC requirements and advice. This was represented by an 83% approval rate.

‘..the units of competency achieved can be used in a range of qualifications, not just those shown.’ Survey # 6

Respondents also indicated (approval rate 66%) that together Parts A and B of the syllabus documentation provided sufficient information to develop teaching/learning programs.

The majority of respondents (approval rate 83%) felt that fair, reliable and valid HSC examinations could be developed based on the breadth of learning experiences within the range of compulsory units of competency.

The major issues raised in the consultation are addressed in Section 3.

2.7 Overall comments

All respondents were generally happy with the proposed syllabus. Some positive responses included:

‘..the examples shown are fair and give a clear understanding of the requirements...’
Survey # 6.

‘The syllabus documents are very clear and concise.’ Response # 5

No respondents expressed dissatisfaction.

While acknowledging a number of positive features about the proposed Framework in general, the main areas of concern include:

- the likelihood of employers signing school-based apprentices to a five-year contract
- the unavailability of school-based traineeships
- the availability of resources and trained teachers.

The following comments highlight these concerns:

‘..I have HUGE concerns that although there is a school-based apprenticeship available there is no school-based traineeship...in regional NSW, employers are NOT willing to sign a 5-year contract for a school-based apprentice but are extremely happy to sign on a 2-year school-based trainee.’
Survey # 5.

These issues have been addressed as detailed in Section 3 and, where appropriate, the Framework has been adjusted in response to consultation.

3 Key issues raised in consultation and actions taken

ISSUE	SOURCE	ACTION/RESPONSE
<ul style="list-style-type: none"> Rationale 		
<p>It is important to state that the two main careers to mention are the licensed trades, namely Electrical and Refrigeration and Air-conditioning..... would also suggest that the word “worker” be replaced with technician.</p>	Survey #17	<p>The rationale reflects the description of the Electrotechnology industry as stated in the Electrotechnology Training Package. Both careers are mentioned in the Training Package description along with all the other possible employment opportunities in Electrotechnology.</p>
<ul style="list-style-type: none"> Course structures 		
<p>It should be highlighted that some/all units of competency achieved....will contribute in some way towards all of the courses mentioned and will be recognised (RPL) when a student undertakes any of these courses.</p>	Survey #17	<p>Section 15 of Part A of the syllabus reproduces the UEE06 Electrotechnology Training Package rules for all qualifications available within the Draft Electrotechnology Curriculum Framework, including all the units of competency contained in each qualification. The National Training Information Service (NTIS) website contains all the qualifications available within the UEE06 Electrotechnology Training Package.</p>
<p>Advice has been received that employers don’t value a Certificate I outcome, however it does mean that students exiting after 120 hours [potentially] get a full qualification.</p>	Response # 8	<p>The units of competency included in the 120-hour course also provide articulation into other qualifications within the UEE06 Electrotechnology Training Package. At a later date, a person can undertake further skills development or training and be assessed against additional competencies required for an AQF VET qualification.</p>
<p>Design of the 240 hour course – if it was designed [structured] differently ie. Compulsory units more aligned to Certificate III cores, would students be able to gain Certificate III from 240 hours?</p>	Response # 2	<p>Students cannot gain a full Certificate III from the 240-hour course.</p>
<p>Newcastle Rail are a big employment base and have a link with the local Trade School, there are no ‘rail’ units in the framework.</p>	Response # 3	<p>The non-inclusion of rail-specific units of competency in the Framework does not preclude students from pursuing this pathway as the units of competency undertaken in the courses provide students with the</p>

Electrotechnology Curriculum Framework Stage 6 Draft Syllabus Consultation Report

ISSUE	SOURCE	ACTION/RESPONSE
		opportunity to pursue equivalence for units of competency post-school.
Include <i>UEENEEG001A Solve problems in electromagnetic circuits</i> in the 240 hour elective pool, or add a specialisation study option to account for this as it will provide students with the equivalent of Stage 1 of and apprenticeship.	Response # 10 Response # 4	This unit is at Certificate III level, therefore it has been added to the Electrotechnology Curriculum Framework as an Extension Course. An Extension course provides students with opportunity to study units of competency at a higher AQF level. In this case this particular unit of competency is at Certificate III level.
Need to add a Statement of Attainment towards Certificate III Systems Electrician.	Response # 4	This qualification does not exist in the UEE06 Electrotechnology training Package.
Why are we forcing students to do particular units of competency [compulsory HSC units of competency]?	Response # 2	All of the compulsory units of competency contribute to the core for the Certificate I in ElectroComms and both Certificate II in Electrotechnology (Career Start) and Certificate II in Sustainable Energy (Career Start). In addition these units of competency provide the students with the basic skills and knowledge for work in any electrotechnology discipline.
Country Energy (which supplies electricity to 95% of NSW) advises that two qualifications from the Electricity Supply Industry Transmission, Distribution and Rail Sector Training Package (UET06) are applicable to their entry-level employees in power distribution and we hope to be able to offer a course that will lead to: UET30206 Certificate III in ESI – Distribution and UET30406 Certificate III in ESI – Cable Joining.	Response # 6	Advice from industry representatives on the ICC indicated that the mandatory units proposed in the draft Electrotechnology Curriculum Framework are relevant to all sectors of the industry and provide a valuable basis of knowledge for all students. In addition some units of competency provide students with the opportunity to pursue equivalence for units of competency post-school.
<ul style="list-style-type: none"> ● Syllabus documents 		
Information re school-based apprenticeship on-the-job required days should be put in Part A?	Response # 2	The on-the-job requirements of any School-based apprenticeship are the responsibility of the employer and the RTO. These requirements would be contained in the Vocational Training Order for each school-based apprentice.
Name each examinable unit in Part B?	Response # 2	The examinable units are highlighted in the information section at the front of the Part B document.

ISSUE	SOURCE	ACTION/RESPONSE
		front of the Part B document.
Section 13 page 13 Part A 13.1.1, replace “Electrotechnology” with “electrotechnology.”	Response # 9	Syllabus amended.
Section 4.2 – is paragraph 2 needed in this section. The section [deals with] determination of AQF qualifications for HSC Students, is this confusing?	Response # 9	This is standard text for section 4.2 all Stage 6 Part A Syllabus documents. Section 4.2 describes the difference between the rules and structure of HSC VET courses and the Training Package qualification packaging rules.
The work placement component/180 days on-the-job component of the School-based apprenticeship is not stated in the syllabus documentation.	Response # 1	<p>The requirements would be contained in the Vocational Training Order for each school-based apprentice. All information can be obtained from the http://www.sbatinnsw.info/ website. The on-the-job requirements of any School-based apprenticeship are the responsibility of the employer and the RTO.</p> <p>For students undertaking an approved school-based traineeship and apprenticeship the mandatory work placement hour requirements are met through the on-the-job training component of the school-based traineeship or apprenticeship.</p>
Why can't we say [students complete] 'Stage 1/Year 1' in school-based apprenticeship pathway?	Response # 2	<p>The <i>School Based Apprenticeships and Traineeships in NSW 2007 Guidelines</i> Section 5.2 outlines the outcomes of Apprenticeships and Traineeships at schools and post school.</p> <p>This section states that school-based apprentices <i>should demonstrate competencies equivalent to a minimum of stage one-year one of the trade qualification on completion of the part-time component while at school.</i></p> <p>http://www.sbatinnsw.info/documents/SBATGuidelines2007.pdf</p>
Could the table in the UEE06 Training Package which indicates where each unit of competency sits in each qualification be included in the syllabus?	Response # 5	Electrotechnology Training Package rules for all qualifications available within the Draft Electrotechnology Curriculum Framework, are available in Section 15 Part A Syllabus document including all the units of competency contained in each qualification. The National Training Information Service (NTIS) website contains all the qualifications

ISSUE	SOURCE	ACTION/RESPONSE
		available within the UEE06 Electrotechnology Training Package.
<ul style="list-style-type: none"> Board of Studies issues 		
<p>Board of Studies checks the packaging rules [for each qualification endorsed for delivery for the HSC] which is not its responsibility, eg prerequisites</p>	Response # 3	<p>The HSC VET industry curriculum frameworks are based on units of competency and qualifications contained in nationally endorsed Training Packages. These AQF VET qualifications are determined by the qualification rules for each Training Package, referred to as qualification packaging rules. The qualification packaging rules describe the number and range of units of competency required for eligibility for an AQF VET qualification. In order to meet the qualification rules for each Training Package qualification the Board of Studies NSW is obliged to ensure that all requirements of the selected units of competency and qualifications are met.</p>
<p>Dates mean that Year 10 students will have left school before the syllabus is endorsed, this can have a major effect on student's/school's planning. The timeframe and the "plan B" scenario is not acceptable.</p>	Response # 3	<p>The implementation date for the new Electrotechnology Curriculum Framework is from Year 11, 2008 with the first optional HSC examination in 2009.</p> <p>The Electrotechnology Curriculum Framework has been included in the publication <i>Studying for the NSW Higher School Certificate – An Information Booklet for Year 10 Students 2007</i> which is distributed to all Year 10 students. An HSC course description for courses within the Framework is available on the Vocational Education page of the Board of Studies website (www.boardofstudies.nsw.edu.au).</p> <p>The Board of Studies declined the proposed CEC in Automotive for 2008 due to the development of the new Electrotechnology Curriculum Framework.</p>
<ul style="list-style-type: none"> UAI pathway 		
<p>Introduction of UAI options supported</p> <p>Parents want a UAI pathway as well as an apprenticeship pathway.</p>	<p>Survey #10</p> <p>Response # 5</p>	<p>Access to the UAI pathway through an optional HSC examination is one of the criteria for the development of an industry curriculum framework.</p>

Electrotechnology Curriculum Framework Stage 6 Draft Syllabus Consultation Report

ISSUE	SOURCE	ACTION/RESPONSE
<ul style="list-style-type: none"> Assessment 		
I would suggest that students are made aware of the fact that units of competency are made up of two parts, namely knowledge and skills and work performance.	Survey #17	The HSC requirements and advice have been developed based on the Training Package requirements of each unit of competency. They articulate the underlying knowledge and content that would be required to enable students to develop their skills and demonstrate competence.
It is essential to have a common base for training and assessment	Survey #6	
<ul style="list-style-type: none"> Students with special needs 		
Dependent on the type of disability. For example, previous TVET special needs students have successfully completed course and gained apprenticeship post school.	Survey #10	Students with special education needs may require adjustments to learning and assessment strategies as well as additional time to demonstrate the required level of competence. Reasonable adjustments to delivery and assessment are appropriate provided they conform to the industry competency standards as expressed in the UEE06 Training Package.
After consultation with the student about the course chosen	Survey #6	
Relies on local situation	Survey #1	
<ul style="list-style-type: none"> Work placement 		
The work placement component/180 days on-the-job component of the School-based apprenticeship would make it extremely difficult for students wanting both an SBA and a UAI. To comply with the SBA and HSC requirements places the student under enormous pressure.	Survey #15 Survey #10	Though students participate in VET while at school, they may be uncertain about continuing VET beyond school, so a pathway which includes a UAI option puts them in the best position to make choices regarding their future destinations.
Issue with the assurance of funding required by Local Industry Partnerships (LCPs) to locate enough appropriate work placements for students who opt to undertake the Electrotechnology Curriculum Framework	Response # 8	This issue has been raised with the Board of Vocational Education and Training (BVET) and the school systems/sectors. Local Community Partnerships (LCPs) are available to liaise with all schools in relation to their work placement requirements for students and coordinate/facilitate appropriate placements.

ISSUE	SOURCE	ACTION/RESPONSE
		<p>The employers benefit from hosting work placement students in a number of ways including:</p> <ul style="list-style-type: none"> - developing links with the local community and being involved in the education and vocational training of young people within the community - being able to promote the industry and help to develop an enthusiastic and skilled workforce - the opportunity to identify young people with potential that might be interested in joining the industry as an apprentice or trainee.
<p>Other Certificate II qualifications in the Training Package require more than 70 hour work placement</p>	<p>Response # 8</p>	<p>Work placement is an HSC course requirement. UEE06 Electrotechnology Training Package does not mandate or indicate work placement hours for any qualifications contained within it.</p>
<p>Work placement requirements should [allow] that the majority of students have the opportunity to prove they are competent for all units with access to the mandatory 70 hours of work placement</p>	<p>Response # 7</p>	<p>Work placement is a mandatory HSC requirement within all Industry Curriculum Frameworks and appropriate hours have been assigned to each course. Learning in the workplace will enable students to:</p> <ul style="list-style-type: none"> • progress towards the achievement of industry competencies • develop appropriate attitudes towards work • learn a range of behaviours appropriate to the industry • practise skills acquired in the classroom or workshop • develop additional skills and knowledge, including the key competencies (refer to Section 13.2, p 35 and Section 15). <p>The mandatory work placement requirements for courses in this Framework are not intended to indicate the time required for the achievement of units of competency. The amount of learning in the workplace that is needed to achieve a unit of competency will vary from student to student. Assessment of the units of competency is to be undertaken by qualified assessor(s) either in a work placement setting or in the classroom.</p> <p>It is the view of the Electrotechnology ICC members that the mandatory work placement for the 240 indicative hour course should be sufficient</p>

ISSUE	SOURCE	ACTION/RESPONSE
		for students to prove competency in both Certificate II in Electrotechnology (Career Start) and Certificate II in Sustainable Energy (Career Start) qualification.
<ul style="list-style-type: none"> School-based apprenticeship and traineeships 		
<p>Why no school-based traineeship in the framework? Defeats the purpose of having an electrotechnology framework.</p>	Response # 3	<p>Since the conclusion of the consultation period a school-based traineeship pathway has been made available in Certificate II in Technical Support. This pathway has been included in the revised Draft Part A syllabus documents.</p>
<p>The Clarence Valley Council understands that to date, a school-based traineeship that aligns with the proposed electrotechnology industry curriculum framework, has not been identified.. have consulted extensively with industry employers who have indicated the need.. urge the BOS to consider this during consultation..</p> <p>Feedback [from TAFE in the Hunter] indicates that the SBA pathway is not popular with electrical contractors because of the 5 year commitment. Would be good to have a SBT pathway that gives advanced standing at trade level.</p> <p>Employers are NOT willing to sign a 5-year contract for a school-based apprentice but are extremely happy to sign on a 2-year school-based trainee.</p>	<p>Response # 11</p> <p>Response # 8</p> <p>Survey #16</p> <p>Response # 1</p>	
<p>Industry are interested in a traineeship as it provides students with Stage 1 of an apprenticeship without requiring the employer or students needing to commit to a five year contract. Local employers are actively trying to attract trainees.</p>	Response # 5	
<p>HUGE concerns that although there is a school-based apprenticeship available there is no school-based traineeship...in regional NSW, employers are NOT willing to sign a 5-year contract for a school-based apprentice but are extremely happy to sign on a 2-year school-based trainee.</p>	<p>Survey #16</p> <p>Response # 5</p>	<p>Since the conclusion of the consultation period there is now a school-based traineeship pathway available in Certificate II in Technical Support. This pathway has been included in the revised Draft Part A syllabus documents.</p>

ISSUE	SOURCE	ACTION/RESPONSE
<p>There is an interest in Hunter for school-based traineeships but this pathway is not available in the draft.</p> <p>Include the relevant units of competency from UEE06 to enable Certificate II outcomes for school-based trainees. Relevant qualifications are: Certificate II in Technical Support and Certificate II Data and Voice Communications. These qualifications provide advanced standing into Certificate III Electrotechnology qualifications.</p>	<p>Response # 1</p> <p>Response # 3</p> <p>Response # 4</p> <p>Response # 8</p>	
<p>Employers are baulking at signing up such young students for 5 years, they want to be able to renegotiate at the end of Year 12.</p>	<p>Response # 1</p>	<p>For clarification of all rules and regulations pertaining to school-based apprenticeships refer to http://www.sbatinnsw.info/ website.</p>
<p>Can a school/employer opt out of a school-based apprenticeship pathway?</p>	<p>Response # 1</p>	
<p>School-based apprentices sit in the trade course and the reality is they [these classes]cannot accommodate HSC/UAI requirements.</p>	<p>Response # 3</p>	<p>A requirement of RTOs delivering courses to HSC students is that they deliver the same curriculum. That is, they must use the Board of Studies NSW syllabus documents and follow the rules and conditions contained therein.</p>
<p>Although it is ideal for school-based apprentices to be following the same program as non- school-based apprentices, it is not appropriate to insist on this structure if it is unlikely that non school-based apprentices could not reach competency due to lack of work placement experience (on-the-job training).</p>	<p>Response # 7</p>	<p>To meet the requirements of the relevant Vocational Training Order (VTO) school-based apprentices must complete a minimum of 180 days on-the-job. In the case of non school-based apprentices assessors cannot deem competency when it has not been achieved regardless of the environment.</p>
<p>● Teacher training/resourcing</p>		
<p>Will the course be delivered in schools? Will training be required?</p> <p>How can school teachers get trained to deliver?</p>	<p>Response # 2</p> <p>Response # 3</p>	<p>Schools systems and sectors will decide once the ICF is endorsed.</p>
<p>The course instructor needs sufficient resources both within the school and outside resourcing from industry. The teacher should also have a trade background particularly in the technology area.</p>	<p>Survey # 6</p>	<p>All RTOs must meet the requirements of the Australian Quality Training Framework 2007. In relation to teachers/trainers Standard 1.4 states:</p>

Electrotechnology Curriculum Framework Stage 6 Draft Syllabus Consultation Report

ISSUE	SOURCE	ACTION/RESPONSE
trade background particularly in the technology area.		<i>Training and assessment are conducted by trainers and assessors who:</i> <i>(a) have the necessary training and assessment competencies as determined by the National Quality Council or its successors</i> <i>(b) have the relevant vocational competencies at least to the level being delivered or assessed</i> <i>(c) continue developing their vocational and training and assessment competencies to support continuous improvements in delivery of the RTO's services.'</i>
Equipment/resource requirements – what will a school need?	Response # 2	All RTOs must meet the requirements of the Australian Quality Training Framework 2007. Refer to http://www.training.com.au/documents/aqtf2k7_ess-std-reg_final2.pdf
Should take into account the needs of RTOs other than TAFE who may be involved in delivery	Response # 7	
Need to familiarise TAFE teachers with HSC course delivery.	Response # 5	Once the revised Framework is approved, a support document will be developed by the Office of the Board of Studies NSW to aid initial implementation. Sample scope and sequence, examples of integrated approaches to programming and holistic delivery and assessment and sample assessment tasks will be provided. This document will be available from the Board's website (www.boardofstudies.nsw.edu.au). School system/sector authorities are responsible for the provision of in-services. Officers from the Board are often invited to present at network/regional meetings to provide an overview of the syllabus documentation.
TAFE teachers do not have experience with the HSC syllabus documents and HSC requirements and advice, and there will need to be professional development in this area.	Response # 3	

ISSUE	SOURCE	ACTION/RESPONSE
<ul style="list-style-type: none"> HSC indicative hours 		
<p>HSC indicative hours undervalue the course.</p> <p>HSC indicative hours – are these the delivery and funded hours?</p> <p>Indicative hours – some anomalies with the allocated hours and the depth of learning.</p>	<p>Response # 10</p> <p>Response # 3</p> <p>Response # 3</p>	<p>Units of competency drawn from Training Packages are not defined in terms of duration. The amount of time required by individual students to achieve competency will vary according to their aptitude and experience. Where a training program is designed for delivery by an RTO, the RTO will specify the length of the training program according to the delivery strategies and/or curriculum resources chosen. However, for the purposes of the HSC, courses must be described in terms of their indicative hours. For this reason, indicative hours for unit credit towards the HSC have been assigned to each unit of competency within the Framework. It is emphasised that the assignment of indicative hours does not imply that all students will fulfil all requirements of a unit of competency within these hours. RTOs may determine that additional or fewer hours are required for the achievement of particular competencies. However, this does not alter the indicative hours allocated, only the delivery hours. It is also expected that students will need to spend additional time practising skills in a work environment and in completing projects and assignments, in order to fulfil Training Package assessment requirements.</p>
<p>Total indicative hours of [compulsory] units should be as minimal as possible whilst still allowing the development of quality HSC exams. This should allow the choice of electives to cater where possible for student interest, teacher expertise, school resources and local employment opportunities, ie as few [compulsory] units as possible.</p> <p>Is there sufficient block time for complete learning and understanding of taught material?</p>	<p>Response # 7</p> <p>Survey # 6</p>	<p>All RTOs must meet the requirements of the Australian Quality Training Framework 2007. When applying for initial registration or renewal of registration, each training organisation signs a declaration that binds it to operate in accordance with the AQTF 2007 Essential Standards for Registration. These standards include 9 Conditions of Registration.</p> <p>Condition 7 Recognition of qualifications issued by other RTOs states <i>The RTO must recognise the AQF qualifications and statements of attainment issued by any other RTO.</i></p>

ISSUE	SOURCE	ACTION/RESPONSE
<p>There is a concern with the recognition of units of competency if a student gets a qualification in 240 'delivery' hours but outside the HSC they need significantly more hours.</p>	<p>Response # 3</p>	<p>All RTOs must meet the requirements of the Australian Quality Training Framework 2007. When applying for initial registration or renewal of registration, each training organisation signs a declaration that binds it to operate in accordance with the AQTF 2007 Essential Standards for Registration. These standards include 9 Conditions of Registration.</p> <p>Condition 7 Recognition of qualifications issued by other RTOs states <i>The RTO must recognise the AQF qualifications and statements of attainment issued by any other RTO.</i></p>
<p>● HSC examination</p>		
<p>Would like to offer students a "FastTrack" program (with specialisation options). It would be desirable for some students to be able to sit for the HSC examination at the end of Year 11 in 2008...we ask that the Board consider making an examination option available at the end of 2008.</p> <p>Can there be an HSC examination in 2008 for students who complete the 240 hour course in one year?</p>	<p>Response # 6</p> <p>Response # 5</p>	<p>The introduction of any new course for the HSC begins with the year of delivery for the Year 11 cohort, with the first HSC examination set for the second year of delivery.</p>
<p>Can students elect not to sit the HSC examination?</p>	<p>Response # 1</p>	<p>The Framework provides an optional HSC examination.</p>
<p>Who writes the HSC examination paper? Are they practising electrotechnology teachers?</p> <p>The examinations need to be set and assessed by/or in conjunction with TAFE NSW MECAT Curriculum Centre to ensure that AQTF requirements are met.</p>	<p>Response # 5</p> <p>Survey #15</p>	<p>An HSC Examination committee is convened for each HSC examination developed. Each HSC committee has a balance of secondary teachers and tertiary educators. Committees have representation from government and non-government schools and gender balance, where feasible. The committee develops the examination paper(s) and marking guidelines for the course(s) for which it is responsible. Training in the Board's processes for developing tests and examinations and in item writing is provided.</p>

ISSUE	SOURCE	ACTION/RESPONSE
Is the HSC examination centrally set and marked?	Response # 1	<p>All applicants will be expected to demonstrate:</p> <ul style="list-style-type: none"> • appropriate qualifications and experience as a teacher of HSC students or first year tertiary students in the subject. In general, a minimum of five years recent experience teaching is considered necessary. In the case of secondary teachers, preference will be given to applicants who have taught the HSC or SC course within the last three years • high-level professional standing within the teaching community demonstrated through scholarship in the area to be examined, outstanding teaching, notable contribution to the relevant professional association and so on • superior knowledge of the new HSC syllabus • high-level written and oral communication skills • capacity to apply the Board’s principles for the development of standards-referenced examinations and marking guidelines • capacity to work in a team in the delivery of educational materials to specified deadlines. <p>The following conditions must be agreed to prior to appointment as Chief Examiner, committee member or assessor for each course in which you wish to be considered:</p> <ul style="list-style-type: none"> • You may not teach or tutor the relevant HSC/SC course to students in 2008. • You may not be an author of textbooks or study guides that are in general use in schools or TAFE in the relevant subject area. • You may not have a close relative (eg spouse, sibling or child) teaching or enrolled as a HSC/SC student, in the relevant course. • You may not set or review papers in the relevant HSC/SC course(s) for school systems (eg Catholic/TAFE/Regional Trials), or commercial organisations such as test writing organisations, or on-line organisations, while a member of an HSC/SC examination committee. For members of an HSC science course committee, this restriction applies to all other HSC science courses. • You may not lecture at meetings or study courses for students and

ISSUE	SOURCE	ACTION/RESPONSE
		<p>teachers, or speak at any meetings on the content or interpretation of the syllabus or examination specifications for the relevant course(s).</p> <ul style="list-style-type: none"> You may not participate in the HSC Advice Line in the relevant HSC course(s). <p>Chief Examiners, committee members and assessors cannot teach or be closely related to someone teaching Year 12/Year 10 in the subject they are setting/assessing in the year in which the examination is being sat. They must maintain complete confidentiality in relation to all HSC examinations and committee discussions, and must sign a Statutory Declaration to this effect.</p>
<ul style="list-style-type: none"> Training Package 		
<p>Can schools only deliver Certificate II?</p>	<p>Response # 1</p>	<p>The qualifications delivered by a Registered Training Organisations are determined by those listed on its Scope of Registration. In order to have a qualification listed on an RTO's Scope of Registration they must have met the requirements of the Registering Body, in NSW this body is VETAB. The scope of Registration of all RTOs can be viewed on the National Training Information Service (NTIS) website www.ntis.gov.au.</p>
<p>TAFE do not issue a Statement of Attainment – they can only issue a statement of competencies achieved.</p>	<p>Response # 3</p>	<p>The VETAB guideline issued under Sections 32 and 40 of the NSW <i>Vocational Education and Training Act 2005</i> (The VET Act), titled 'Guidelines on AQF Certification to be issued by RTO' Section 1.2 states:</p> <p><i>'if a student achieves fewer units of competency (or course modules) than those required for an AQF qualification, the RTO must issue a Statement of Attainment. On the Statement of Attainment the RTO must list the titles and codes of all the units of competency (or module) the student has achieved, or provide a separate list (a transcript) as an attachment..'</i></p>

ISSUE	SOURCE	ACTION/RESPONSE
<ul style="list-style-type: none"> Units of competency 		
<p>Students should be able to receive maximum post-school recognition from the [compulsory] units no matter which industry stream they choose to follow.</p> <p>It should be highlighted that some/all units of competency achieved....will contribute in some way towards all of the courses mentioned and will be recognised (RPL) when a student undertakes any of these courses.</p> <p>Where possible combinations of units [selected] should align with post-school providers to enable smooth transitions. Should enable [where possible] students to make career decisions whilst still at school.</p> <p>North Coast Institute of TAFE try to give their students information that includes the transferability of each unit of competency they achieve, they are eager to provide their students with comprehensive information regarding their credit transfer possibilities. They are aware of their responsibilities under the AQTF regarding mutual recognition.</p> <p>The units of competency achieved can be used in a range of qualifications, not just those shown</p>	<p>Response # 7</p> <p>Response # 7</p> <p>Survey # 17</p> <p>Response # 5</p> <p>Survey #17</p>	<p>Section 15 of Part A of the syllabus reproduces the UEE06 Electrotechnology Training Package rules for all qualifications available within the Draft Electrotechnology Curriculum Framework, including all the units of competency contained in each qualification. The National Information Service (NTIS) website contains all the qualifications available within the UEE06 Electrotechnology Training Package.</p>
<p>Concerns with some units of competency with licensing and pre-requisite requirements</p>	<p>Response # 1</p>	<p>Syllabus will be amended removing elective unit of competency with licensing requirements or excessive pre-requisite hours.</p>
<p>Will there be direct articulation from achievement of specific units of competency to universities?</p>	<p>Response # 3</p>	<p>University recognition for the purposes of the HSC can be achieved via the UAI for the 240-hour course optional examination.</p>

4 Written responses

In addition to survey responses, written responses were received from the following individuals/groups:

Individual
Clarence Valley Council – Mayor
Catholic Education Commission – State Coordinator, VET and Teacher Development
Department of Education and Training – Vocational Education in Schools Directorate
Department of Education and Training – North Coast Regional Vocational Education and 15–19 years Consultant