

# 22231VIC

## Course in Safe Use of Machinery for Technology Teaching



This course has been accredited under Parts 4.4 and 4.6 of the Education and Training Reform Act 2006. It has been entered on the *State Register of Accredited Courses and Recognised Qualifications* and on [training.gov.au](http://training.gov.au).

**Accredited for the period: 1 January 2013 to 31 December 2017**

## Document Status

This document is an exact copy of the document, which is listed on the State Register of Accredited Courses and Recognised Qualifications and on training.gov.au.

Version 1: Accredited from 1 January 2013 to 31 December 2017



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## Section A: Copyright and course classification information

<p><b>1 Copyright owner of the course</b></p>	<p>Copyright of this document is held by the Department of Education and Early Childhood Development, Victoria © State of Victoria.</p> <p>Day to day contact : Curriculum Maintenance Manager -Engineering Industries Box Hill Institute of TAFE Private Bag 2014 Box Hill , Vic 3128 Ph : 03 9286 9880 Fax : 03 9286 9991 Email : g.adda@bhtafe.edu.au</p>
<p><b>2 Address</b></p>	<p>Department of Education and Early Childhood Development Higher Education and Skills Group Executive Director Pathways Participation and Youth Division PO Box 266 Melbourne, Vic. 3001</p>
<p><b>3 Type of submission</b></p>	<p>This course is being submitted for re-accreditation. It replaces 21820VIC Course in Safe Use of Machinery for Technology Teaching.</p>
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<p><b>6 Course accrediting body</b></p>	<p>Victorian Registration and Qualifications Authority  GPO Box 2317  Melbourne Vic 3000</p> <p>Telephone: 03 9637 2806  Email: <a href="mailto:vrqa@edumail.vic.gov.au">vrqa@edumail.vic.gov.au</a>  Website: <a href="http://www.vrqa.vic.gov.au">www.vrqa.vic.gov.au</a></p>
<p><b>7 AVETMISS information</b></p>	<p><b>ANZSCO code</b> 241400 <i>Secondary School Teachers</i></p> <p><b>ANZSIC code</b> 8022 <i>Secondary Education</i></p> <p><b>ASCED Code</b> –070105 <i>Teacher Education - Secondary</i></p> <p><b>National course code</b> - <i>To be provided by the course accrediting body once the course is accredited</i></p>
<p><b>8 Period of accreditation</b></p>	<p>1 January 2013 – 31 December 2017</p>



## Section B: Course information

<b>1 Nomenclature</b> <i>Standard 1 AQTF Standards for Accredited Courses</i>	
<b>1.1 Name of the qualification</b>	22231VIC Course in Safe Use of Machinery for Technology Teaching
<b>1.2 Nominal duration of the course</b>	32 hours
<b>2 Vocational or educational outcomes</b> <i>Standard 1 AQTF Standards for Accredited Courses</i>	
<b>2.1 Purpose of the course</b>	<p>The course has been designed to provide technology teachers using wood and metal machinery in a technology classroom environment with skills in:</p> <ul style="list-style-type: none"> <li>• applying principles and legal requirements of OHS to technology teaching</li> <li>• safely operating machinery commonly used by students and teachers</li> <li>• identifying, assessing and controlling hazards when working with machines used by students and teachers</li> <li>• managing safe use of machines in a classroom setting</li> <li>• providing first level maintenance for machines such as lubrication and changing of blades</li> <li>• transferring safe operating principles to a range of machines</li> <li>• using protective items such as guards and clothing</li> </ul> <p>The course is confined to the safe use of machinery for technology teaching and is not intended to provide teachers with the vocational competencies in the operation of machinery.</p>
<b>3 Development of the course</b> <i>Standards 1 and 2 AQTF Standards for Accredited Courses</i>	
<b>3.1 Industry /enterprise/ community needs</b>	<p>This is a specialised course covering the Victorian Secondary School System. There is no Industry Skills Council or other advisory body covering specific areas of occupational health and safety for secondary school teachers.</p> <p>The main stakeholder for this course is the Department of Education and Early Childhood Development (DEECD) and the public and private secondary school system. The course supports the occupational health and safety requirements for the secondary school system where teachers are working with machinery in educational settings.</p>



### 3.1 Industry /enterprise/ community needs

(Continued)

DEECD identified the need for this training based on an analysis of teacher and student injuries sustained when working with machinery. The analysis identified a skills gap for technology teachers in secondary schools in the safe operation and conduct of basic maintenance of a wide range of machines used in wood and metal technology education. As part of meeting its obligations under the Occupational Health and Safety Act 2004, DEECD is committed to providing effective information, instruction and training. The proposed course is a critical part of the occupational health and safety risk controls necessary to achieve the safe operation of machinery in wood and metal technology areas.

There were 737 enrolment in 2009, 510 enrolments in 2010 and 150 in 2011. It is expected that demand for this training will continue but enrolments will stabilise to meet the needs of new entrants and teachers new to technology teaching. DEECD projects enrolments of 120 teachers per year. This includes technology teachers from Catholic and independent secondary colleges.

The proposed competencies are not addressed in any endorsed training package. Existing units of competency do not fully meet the needs of DEECD with respect to the skills and knowledge required by technology teachers.

A skills and knowledge survey was developed and responses were sought from practitioners. The survey results identified a range of skills and knowledge as critical or very important (see Appendix 4 – Skills and Knowledge Survey for a summary). Examples include:

- pre-operation safety checks
- use of lock out devices
- safe operating procedures.

A course steering committee was established to advise on the development of this course (see Appendix 1 – Steering Committee Minutes and Appendix 2 – Course Contents Endorsement forms).

Members of the steering committee were:

Lorraine Tran	Victorian Curriculum and Assessment Authority
Carolyn Clancy	Australian Education Union
Max Andrews	Holmesglen Institute of TAFE
Paul O'Halloran	DEECD
David Melhuise	DEECD, Loddon Mallee Regional Office
David Fletcher	Design and Technology Teachers Association
Brett Thompson	Victorian WorkCover Authority

The Project Manager was George Adda, Engineering Industries Curriculum Maintenance Manager, Box Hill Institute of TAFE.

Consultation with key representatives confirmed the need for this course.

Please refer to the appendices for:

- Appendix 1 - Minutes of Steering Committee Meetings
- Appendix 2 - Summary of skills and knowledge survey





<p><b>3.2 Review for re-accreditation</b></p>	<p>This is a re-accreditation submission to replace the course 21820VIC – Course in Safe Use of Machinery for Technology Teaching</p> <p>The re-accredited course is not equivalent to the above superseded accredited course.</p> <p>The transition table between the superseded course and the re-accredited course is shown below.</p> <table border="1" data-bbox="564 483 1442 936"> <thead> <tr> <th colspan="2">Accredited curriculum units</th> <th colspan="3">Corresponding units</th> </tr> </thead> <tbody> <tr> <td>VBQU618</td> <td>Apply OH&amp;S principles to technology teaching</td> <td>VU21279</td> <td>Investigate the OH&amp;S responsibilities of technology teachers</td> <td>Not Equivalent</td> </tr> <tr> <td>VBQU619</td> <td>Safely operate and maintain wood working machines</td> <td>VU21280</td> <td>Safely operate and maintain wood working machines</td> <td>Equivalent</td> </tr> <tr> <td>VBQU620</td> <td>Safely operate and maintain metal working machines</td> <td>VU21281</td> <td>Safely operate and maintain metal working machines</td> <td>Equivalent</td> </tr> </tbody> </table> <p>Where possible currently enrolled students in 21820VIC – Course in Safe Use of Machinery for Technology Teaching should be given the opportunity to transfer to the re-accredited course.</p> <p>No new students should be enrolled in 21820VIC – Course in Safe Use of Machinery for Technology Teaching after 30 June 2013.</p>	Accredited curriculum units		Corresponding units			VBQU618	Apply OH&S principles to technology teaching	VU21279	Investigate the OH&S responsibilities of technology teachers	Not Equivalent	VBQU619	Safely operate and maintain wood working machines	VU21280	Safely operate and maintain wood working machines	Equivalent	VBQU620	Safely operate and maintain metal working machines	VU21281	Safely operate and maintain metal working machines	Equivalent
Accredited curriculum units		Corresponding units																			
VBQU618	Apply OH&S principles to technology teaching	VU21279	Investigate the OH&S responsibilities of technology teachers	Not Equivalent																	
VBQU619	Safely operate and maintain wood working machines	VU21280	Safely operate and maintain wood working machines	Equivalent																	
VBQU620	Safely operate and maintain metal working machines	VU21281	Safely operate and maintain metal working machines	Equivalent																	
<p><b>4 Course outcomes Courses</b> <i>Standards 1, 2, 3, 4 and 5 AQTF Standards for Accredited Courses</i></p>																					
<p><b>4.1 Qualification level</b></p>	<p><i>Standards 1, 2 and 3 AQTF Standards for Accredited Courses</i></p> <p>This course does not align with any specific Australian Qualification Framework (AQF) level but is consistent with the definition of a short course in that it is a program of learning that comprises units of competency and has been accredited by an accrediting authority.</p>																				



<b>4.2 Employability skills</b>	<i>Standard 4 AQTF Standards for Accredited Courses</i> Not applicable			
<b>4.3 Recognition given to the course (if applicable)</b>	<i>Standard 5 AQTF Standards for Accredited Courses</i> Not applicable			
<b>4.4 Licensing/ regulatory requirements (if applicable)</b>	<i>Standard 5 AQTF Standards for Accredited Courses</i> Not applicable			
<b>5 Course rules</b> <i>Standards 2, 6,7 and 9 AQTF Standards for Accredited Courses</i>				
<b>5.1 Course structure</b> To be eligible for a Statement of Attainment for the Course in Safe Use of Machinery in Technology Teaching, participants must complete all three units of competency listed below. Participants not completing all three units will be issued with a Statement of Attainment identifying those units of competency which have been successfully completed.				
<b>Unit of competency/ module code</b>	<b>Field of Education code (six-digit)</b>	<b>Unit of competency/module title</b>	<b>Pre-requisite</b>	<b>Nominal hours</b>
VU21279	070105	Investigate the OH&S responsibilities of technology teachers	Nil	4
VU21280	070105	Safely operate and maintain wood working machines	Nil	16
VU21281	070105	Safely operate and maintain metal working machines	Nil	12
<b>Total nominal hours</b>				<b>32 hrs</b>
<b>5.2 Entry requirements</b> <i>Standard 9 AQTF Standards for Accredited Courses</i> It is expected that course participants are teachers who are registered with or have permission to teach from the Victorian Institute of Teaching, or individuals enrolled in an approved course in teaching. Participants must be able to operate wood and metal machinery used in technology teaching.				



6 Assessment	<i>Standards 10 and 12 AQTF Standards for Accredited Courses</i>
<p><b>6.1 Assessment strategy</b></p>	<p><i>Standard 10 AQTF Standards for Accredited Courses</i></p> <p>All assessments must be consistent with the requirements of Standard 1, Element 1.5 of the AQTF: Essential Conditions and Standards for Continuing Registration.</p> <p>Training organisations must provide quality training and assessment across all of its operations consistent with the requirements of approved national standards for registration. The standards generally require that assessment must:</p> <ul style="list-style-type: none"> <li>• meet the requirements of the relevant Training Package or accredited course</li> <li>• be conducted in accordance with the principles of assessment and the rules of evidence, and</li> <li>• meet workplace and, where relevant, regulatory requirements.</li> </ul>



## 6.1 Assessment strategy (Continued)

The standards ensure assessment strategies meet requirements of the course and have been developed in consultation with industry stakeholders.

Assessment strategies must therefore ensure that:

- all assessments are valid, reliable, flexible and fair
- learners are informed of the context and purpose of the assessment and the assessment process
- feedback is provided to learners about the outcomes of the assessment process and guidance given for future options
- time allowance to complete a task is reasonable and specified to reflect the industry context in which the task takes place

Assessment strategies should be designed to:

- cover a range of skills and knowledge required to demonstrate achievement of the course aim
- collect evidence on a number of occasions to suit a variety of contexts and situations
- be appropriate to the knowledge, skills, methods of delivery and needs and characteristics of learners
- assist assessors to interpret evidence consistently
- recognise prior learning
- be equitable to all groups of learners

Assessment methods are included in each unit and include :

- direct observation of processes and procedures
- oral and/or written questioning
- inspection of final process outcomes
- portfolio of documentary work based evidence

A holistic approach to assessment, by combining the assessment of more than one unit, is encouraged to better replicate working practice and reduce the potential for over assessment.

National standards impose requirements on RTOs for Recognition of Prior Learning (RPL). Information and support needs to be provided to applicants so they can gather reliable evidence to support their claim for recognition of competencies held regardless of how, when or where the learning occurred.



## 6.2 Assessor competencies

### *Standard 12 AQTF Standards for Accredited Courses*

Assessor competencies for this course must be consistent with the requirements of Standard 1, Element 1.4 of the AQTF: Essential Conditions and Standards for Continuing Registration.

There are no additional assessor competencies for this course apart from those that meet the requirements of approved national standards for the registration of training organisations.

The standards for registration normally require that trainers and assessors:

- have the training and assessment competencies determined by the National Skills Standards Council or its successors,
- have the relevant vocational competencies at least to the level being delivered or assessed, and
- continue to develop their vocational and training and assessment competencies to support continuous improvements in the delivery of RTO services.

In addition to the above it is recommended that assessors have comprehensive and current knowledge of the industry and the job or role against which performance is being assessed. Assessors should also have appropriate interpersonal and communication skills.

Alternatively, a panel, team or partnership approach involving assessors and technical experts whereby the assessment is conducted by a team/panel/partnership in which at least one assessor has the competencies determined by the National Skills Standards Council (NSSC) and the other assessor(s) have the relevant vocational competencies, at least to the level being assessed.



<b>7 Delivery</b>	
<i>Standards 11 and 12 AQTF Standards for Accredited Courses</i>	
<b>7.1 Delivery modes</b>	<p><i>Standard 12 AQTF Standards for Accredited Courses</i></p> <p>There are no restrictions on offering the program on either a full-time or part-time basis.</p> <p>Delivery strategies may include</p> <ul style="list-style-type: none"> <li>• classroom delivery</li> <li>• practical work</li> <li>• workplace projects</li> <li>• self-paced learning</li> <li>• case studies</li> <li>• role plays</li> <li>• guest speakers</li> </ul> <p>Due to the potential for a dispersed distribution of learners, course providers may wish to consider non-traditional strategies in the delivery of training. The use of distance learning and the achievement of competencies through workplace activities should be fostered and encouraged where possible.</p> <p>Providers must ensure that participants have the opportunity to apply their learning to wood and metal working machinery as part of their training.</p>
<b>7.2 Resources</b>	<p><i>Standard 12 AQTF Standards for Accredited Courses</i></p> <p>General facilities, equipment and other resources required to deliver the proposed Course in Safe Use of Machinery for Technology Teaching include:</p> <ul style="list-style-type: none"> <li>• training facilities and equipment</li> <li>• relevant texts and references</li> <li>• appropriate environmental safeguards and occupational health and safety facilities and equipment</li> <li>• occupational health and safety policy and work procedures/instructions</li> <li>• access to relevant legislation, service installation information, standards and codes of practice</li> <li>• access to equipment, tools, wood and metal working machines, materials and consumables</li> <li>• access to plans, drawings and instructions</li> <li>• manufacturers' specifications/manuals</li> <li>• a workplace environment or simulated workplace environment appropriate to the assessment tasks.</li> </ul> <p>There are no additional trainer competencies for this course apart from those that meet the requirements of approved national standards for the registration of training organisations.</p>



	<p>The standards for registration normally require that trainers and assessors:</p> <ul style="list-style-type: none"> <li>• have the training and assessment competencies determined by the National Skills Standards Council or its successors,</li> <li>• have the relevant vocational competencies at least to the level being delivered, and</li> <li>• continue to develop vocational and training competencies to support continuous improvement in the delivery of training services.</li> </ul>
<p><b>8. Pathways and articulation</b></p>	<p><i>Standard 12 AQTF Standards for Accredited Courses</i></p> <p>This course is not intended to provide a formal career pathway. At the time of accreditation, there were no articulation or credit transfer arrangements in place.</p>
<p><b>9 Ongoing monitoring and evaluation</b></p>	<p><i>Standard 13 AQTF Standards for Accredited Courses</i></p> <p>Ongoing evaluation and validation of this course is the responsibility of the Curriculum Maintenance Manager, Engineering Industries.</p> <p>A course advisory committee will be established for the ongoing monitoring and evaluation of the course. It will include representatives from:</p> <ul style="list-style-type: none"> <li>• Curriculum Maintenance Manager, Engineering Industries</li> <li>• course providers</li> <li>• State Government representatives</li> <li>• school representatives</li> </ul> <p>The committee will:</p> <ul style="list-style-type: none"> <li>• review the implementation of the course</li> <li>• provide advice on changing program requirements, such as the need to add elective units to meet defined industry needs</li> <li>• monitor and evaluate course standards, delivery and assessment</li> <li>• review the continuing need for the course should an appropriate qualification be incorporated into a national endorsed Training Package.</li> </ul> <p>The course advisory committee will meet at least once during the accreditation period for a mid-term review. Additional meetings may be scheduled on a needs basis.</p> <p>Recommendations for any significant changes will be reported through the Curriculum Maintenance Manager, Engineering Industries to the Victorian Registration and Qualifications Authority.</p>



## Section C: Units of competency

<b>Unit Code</b>	<b>Unit Title</b>
VU21279	Investigate the OH&S responsibilities of technology teachers
VU21280	Safely operate and maintain wood working machines
VU21281	Safely operate and maintain metal working machines





Unit Code: VU21279	Unit Title: Investigate the OH&S responsibilities of technology teachers	
Unit Descriptor	<p>This unit of competency sets out the knowledge and skills required by technology teachers using wood and metal working machinery in a classroom environment in order to:</p> <ul style="list-style-type: none"> <li>• apply OH&amp;S to group based learning</li> <li>• assess and control risks</li> <li>• identify hazards</li> <li>• respond to emergencies</li> <li>• source OH&amp;S information relevant to technology teaching</li> <li>• identify OH&amp;S roles of key school personnel.</li> </ul>	
Employability skills	This unit contains employability skills.	
Application of the Unit	The unit applies to technology teaching environments in secondary schools where wood and metal working machinery is used and the learning experience is supervised and conducted by a registered teacher.	
<p><b>ELEMENT</b></p> <p>Elements describe the essential outcomes of a unit of competency.</p>	<p><b>PERFORMANCE CRITERIA</b></p> <p>Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold/italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.</p>	
1. Describe <b>OH&amp;S requirements</b> relevant to wood and metal technology teaching	1.1	The <b>key requirements of OH&amp;S legislation</b> , DEECD policies, and guidelines as they apply to technology teachers and teaching are described.
	1.2	Departmental and school <b>OH&amp;S resources</b> are accessed, implementation requirements described and additional information sourced where required.
	1.3	The responsibility of school management for OH&S and opportunities for technology teachers to contribute to <b>OH&amp;S consultation processes</b> within the school are identified and explained.
	1.4	The <b>OH&amp;S risk control hierarchy</b> as it applies to risks in technology is described.
	1.5	The machinery that is approved by the education sector employer for student and teacher use in wood and metal technology teaching is identified.



2. Assess and manage risks in a wood and metal technology teaching environment	2.1	A range of <b>hazard identification tools</b> are used to identify hazards in a technology teaching classroom.
	2.2	Risk controls for identified <b>risks areas</b> in wood and metal technology teaching are developed
	2.3	The requirements for reporting potentially hazardous situations and incidents to <b>appropriate personnel</b> are described.
	2.4	Requirements for implementing emergency procedures within the classroom are described
	2.5	<b>Classroom strategies</b> for implementing teachers' responsibilities for OH&S relevant to wood and metal technology teaching are described.

## REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills for this unit are:

- applying OH&S requirements in a technology teaching environment
- identifying and controlling risks and hazards to ensure a safe learning environment
- exercising duty of care in a technology teaching environment
- reporting on OH&S hazards and incidents
- working with others to reduce risk and improve safety in a technology teaching environment

Required knowledge for this unit is:

- OH&S requirements in legislation, DEECD policies and guidelines relevant to technology teaching
- OH&S roles and responsibilities of technology teachers
- OH&S roles and responsibilities of school management
- sources of OH&S information and advice relevant to technology teaching
- hazards and risks in technology teaching environment
- risk controls relevant to technology teaching

## RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

**Key requirements of OH&S legislation** may include but are not limited to:

- duty of care
- hazard and risk identification and reporting
- risk assessment and control measures
- incident / accident investigation and reporting
- OH&S audits and safety inspections
- consultative arrangements for employees
- health and safety representatives



- safe operating procedures / instructions
- use and maintenance of personal protective equipment
- assessment of appropriate hair, clothing and footwear
- emergency and evacuation procedures
- equipment maintenance and use
- material safety data sheets
- hazardous substances and dangerous goods code
- safe operation procedures
- mandatory reporting
- first aid requirements

**OH&S resources** may include but are not limited to:

- [www.education.vic.gov.au/hr/ohs/health/default.htm](http://www.education.vic.gov.au/hr/ohs/health/default.htm)
- [www.education.vic.gov.au/hr/ohs/health/risk.htm](http://www.education.vic.gov.au/hr/ohs/health/risk.htm)
- [www.education.vic.gov.au/hr/ohs/edusafe.htm](http://www.education.vic.gov.au/hr/ohs/edusafe.htm)
- [www.education.vic.gov.au/hr/ohs/hazards/techareas.htm](http://www.education.vic.gov.au/hr/ohs/hazards/techareas.htm)
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- [www.eduweb.vic.gov.au/edulibrary/public/ohs/DEE\\_EHU-03-4-1\\_OHS\\_Responsibilities.pdf](http://www.eduweb.vic.gov.au/edulibrary/public/ohs/DEE_EHU-03-4-1_OHS_Responsibilities.pdf)
- WorkSafe publications
- SafeWork Australia publications
- Material safety data sheets

**OH&S consultation processes** may include but are not limited to:

Refers to the participation in OHS consultation processes for identifying technology risks, reviewing risk control options and developing and implementing action plans applicable to technology areas

**OH&S risk control hierarchy** includes

Eliminating the risk (e.g. eliminating high risk activities from the curriculum)

Reducing the risk through:

- substitution (e.g. using lower risk machinery and processes)
- engineering (e.g. using storage design, automation, guarding and barriers to isolate the risk from students)
- administrative solutions (e.g. purchasing pre-cut wood, implementing safe work procedures for using machinery and transporting materials, induction training of employees and students)
- use of personal protective equipment



**Hazard identification tools** may include but are not limited to:

- workplace inspections
- consultation
- incident reporting and analysis
- incident investigations

**Risk areas** in wood and metal technology may include but are not limited to:

- machinery
- manual handling
- noise
- chemicals
- slips and trips
- electrical hazards
- dust and fumes
- people-environment fit

**Appropriate personnel** may include but are not limited to:

- principal
- supervisor
- leading teacher
- team member / other technology teachers
- OH&S representative
- OH&S consultant
- trainer
- mentor
- management OH&S nominee/committee
- WorkSafe incident notification officer

**Classroom Strategies** may include but are not limited to

- supervision
- housekeeping
- safety culture

## EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment section in Section B of the accreditation submission.

**Critical aspects for assessment and evidence required to assess competency in this unit**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria.

In particular this shall incorporate evidence that shows a candidate is able to:

- implement Occupational Health and Safety workplace procedures and practices relevant to technology teaching including the use of risk control measures;



- demonstrate the application of OH&S principles to technology teaching.

**Context of and specific resources for assessment**

- Evidence should show competency working in a realistic environment and in a variety of conditions.
- The candidate will have access to all tools, equipment, materials and documentation required. The candidate will be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
- This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

**Method of assessment**

Evidence can be gathered through a variety of ways including:

- observation of processes and procedures;
- oral and/or written questioning on required knowledge and skills;
- testimony from supervisors, colleagues, clients and/or other appropriate persons;
- inspection of the final product or outcome;
- a portfolio of documentary evidence.

Where performance is not directly observed and/or is required to be demonstrated over a period of time and/or in a number of locations, any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.

**Guidance information for assessment**

- There is no concurrent assessment recommendation for this unit.
- Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and to be capable of applying the competency in new and different situations and contexts.



Unit Code: VU21280	Unit Title: Safely operate and maintain wood working machines	
Unit Descriptor	<p>This unit of competency sets out the knowledge and skills required for registered teachers to safely operate and maintain wood working machines used in secondary schools for technology teaching.</p> <p>Persons practicing this competency must be registered with or have permission to teach from the Victorian Institute of Teaching (VIT) or its equivalent in other jurisdictions.</p>	
Employability skills	This unit contains employability skills.	
Application of the Unit	The unit applies to technology teaching environments in secondary schools where the learning experience is supervised and conducted by a registered teacher.	
<b>ELEMENT</b> Elements describe the essential outcomes of a unit of competency.	<b>PERFORMANCE CRITERIA</b> Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold/italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.	
1. Prepare wood working machine for use	1.1	<b>OH&amp;S requirements</b> for preparing and using <b>wood working machines</b> are identified and followed
	1.2	Appropriate <b>personal protective equipment</b> is selected, correctly fitted and used in accordance with Australian Standards
	1.3	Machine is <b>set up</b> to required operating process and setting with fences/guides locked in position in accordance with work place procedures
2. Operate wood working machine	2.1	OH&S requirements for operating wood working machines are identified and followed
	2.2	Machine start up procedures are carried out to manufacturer's specifications
	2.3	Materials feed to the machine, where applicable, is in accordance with manufacturer's specification, safe handling and work place procedures



	2.4	Materials set up and held into place, where applicable, for mobile machine and moving table operations in accordance with manufacturer's specifications
	2.5	Machine is operated in accordance with its designated capacity and purpose and to manufacturer's specifications and OH&S requirements
	2.6	Machine shut down procedure is carried out to manufacturer's specifications and industry standards and isolation procedures implemented as appropriate
3. Maintain wood working machine and attachments	3.1	OH&S requirements for maintaining wood working machines are identified and followed
	3.2	Machine is maintained through regular servicing to manufacturer's operating manual
	3.3	Faults are identified and reported to appropriate personnel according to work place procedures
	3.4	Minor faults are identified and corrected, where applicable
	3.5	Machine is shut down to manufacturer's specifications and work place procedures
	3.6	Lockout and isolation procedures are implemented
4. Clean up work area	4.1	Material that can be reused is collected and stored
	4.2	Waste and scrap are removed following work place procedures
	4.3	Machine and work area are cleaned and inspected for serviceable condition according with work place procedures



## REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills for this unit are:

- working safely with wood working machines
- operating wood working machines safely
- setting up wood working machines for operation
- measuring materials and components to specified sizes/tolerances
- effectively communicating with others in an educational setting

Required knowledge for this unit is:

- workplace and equipment safety requirements including relevant regulations
- types of wood working machines and their operation
- safety consideration for operating wood working machinery
- maintenance of wood working machinery
- cutters, blades and associated accessories
- tools and equipment relevant to setting up wood working machines
- materials under machine operation
- fault identification
- personal protective equipment
- guarding and machine protective equipment

## RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

### ***OH&S requirements***

- standards and codes of practice relevant to specific machinery
- supervision requirements for specific machinery
- hazard identification and risk assessment for specific machinery
- risk assessment and control measures
- safe operating procedures / instructions
- manufacturer's safe operating procedures and specifications
- use and maintenance of personal protective equipment
- equipment maintenance and use

### ***Wood working machines*** may include

- wood lathe
- cross cut saw
- rip saw
- scroll saw
- band saw
- panel saw
- docking saw
- bobbin sander
- disc sander





- belt sander
- vertical drill press
- surface planer
- panel planer
- routers
- thicknessers
- buzzers

**Personal protective equipment** may include

Personal protective equipment is to include that prescribed under legislation, regulation and enterprise policies.

Examples of protective equipment are:

- safe footwear
- eye/face protection
- ear plugs/muffs
- dust masks/respirators
- gloves
- cap
- hairnet
- appropriate clothing

**Setting up** may include

- pre-operation checks
- settings for the job
- adjustments for sizing and speed
- fences and guards in place
- housekeeping

## EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment section in Section B of the accreditation submission.

**Critical aspects for assessment and evidence required to assess competency in this unit**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria.

In particular this includes evidence that shows a candidate is able to:

- implement Occupational Health and Safety requirements and practices;
- demonstrate the safe operation of a range of wood working machines



**Context of and specific resources for assessment**

- Evidence should include the demonstration of competency in a working or simulated working environment.
- The candidate will have access to all tools, equipment, materials and documentation required. The candidate will be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
- This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

**Method of assessment**

Evidence can be gathered through a variety of ways including:

- observation of processes and procedures such as machine set up;
- oral and/or written questioning on required knowledge and skills such as locating faults;
- testimony from supervisors, colleagues, clients and/or other appropriate persons, for example, on effectiveness of communication skills;
- inspection of the final product or outcome such as the fixing of guards;
- a portfolio of documentary evidence such as maintenance records or photographs.



Unit Code: VU21281	Unit Title: Safely operate and maintain metal working machines	
Unit Descriptor	<p>This unit of competency sets out the knowledge and skills required for registered teachers to safely operate and maintain metal working machines used in secondary schools for technology teaching.</p> <p>Persons practicing this competency must be registered with or have permission to teach from the Victorian Institute of Teaching (VIT) or its equivalent in other jurisdictions.</p>	
Employability skills	This unit contains employability skills.	
Application of the Unit	The unit applies to technology teaching environments in secondary schools where the learning experience is supervised and conducted by a registered teacher.	
<b>ELEMENT</b> Elements describe the essential outcomes of a unit of competency.	<b>PERFORMANCE CRITERIA</b> Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold/italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.	
1. Prepare metal working machine for use	1.1	<b>OH&amp;S requirements</b> for preparing and using <b>metal working machines</b> are identified and followed
	1.2	Appropriate <b>personal protective equipment</b> is selected, correctly fitted and used in accordance with Australian Standards
	1.3	Machine is <b>set up</b> to required operating process and setting with fences/guides locked in position in accordance with work place procedures
2. Operate metal working machine	2.1	OH&S requirements for operating metal working machines are identified and followed
	2.2	Machine start up procedures are carried out to manufacturer's specifications
	2.3	Materials feed to the machine, where applicable, is in accordance with manufacturer's specification, safe handling and work place procedures



	2.4	Materials set up and held into place, where applicable, for mobile machine and moving table operations in accordance with manufacturer's specifications
	2.5	Machine is operated in accordance with its designated capacity and purpose and to manufacturer's specifications and OH&S requirements
	2.6	Machine shut down procedure is carried out to manufacturer's specifications and industry standards and isolation procedures implemented as appropriate
3. Maintain metal working machine and attachments	3.1	OH&S requirements for maintaining metal working machines are identified and followed
	3.2	Machine is maintained through regular servicing to manufacturer's operating manual
	3.3	Faults are identified and reported to appropriate personnel according to work place procedures
	3.4	Minor faults are identified and corrected, where applicable
	3.5	Machine is shut down to manufacturer's specifications and work place procedures
	3.6	Lockout and isolation procedures are implemented
4. Clean up work area	4.1	Material that can be reused is collected and stored
	4.2	Waste and scrap are removed following work place procedures
	4.3	Machine and work area are cleaned and inspected for serviceable condition according with work place procedures



## REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills for this unit are:

- working safely with metal working machines
- operating metal working machines safely
- setting up metal working machines for operation
- measuring materials and components to specified sizes/tolerances
- effectively communicating with others in an educational setting

Required knowledge for this unit is:

- workplace and equipment safety requirements including relevant regulations
- types of metal working machines and their operation
- safety consideration for operating metal working machinery
- maintenance of metal working machinery
- cutters, blades and associated accessories
- tools and equipment relevant to setting up metal working machines
- materials under machine operation
- fault identification
- personal protective equipment
- guarding and machine protective equipment

## RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

### ***OH&S requirements***

- standards and codes of practice relevant to specific machinery
- supervision requirements for specific machinery
- hazard identification and risk assessment for specific machinery
- risk assessment and control measures
- safe operating procedures / instructions
- manufacturer's safe operating procedures and specifications
- use and maintenance of personal protective equipment
- equipment maintenance and use

### ***Metal working machines*** may include

- metalworking lathe
- drill press
- grinders
- milling machine
- cold metal saw



- power hack saw
- metal cut off saw
- buffing machine
- angle grinder
- guillotine
- folding machine
- welding equipment

**Personal protective equipment** may include

Personal protective equipment is to include that prescribed under legislation, regulation and enterprise policies.

Examples of protective equipment are:

- safe footwear
- eye/face protection
- ear plugs/muffs
- dust masks/respirators
- gloves
- cap
- hairnet
- appropriate clothing

**Setting up** may include

- pre-operation checks
- settings for the job
- adjustments for sizing and speed
- fences and guards in place
- housekeeping

## EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment section in Section B of the accreditation submission.

**Critical aspects for assessment and evidence required to assess competency in this unit**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria.

In particular this includes evidence that shows a candidate is able to:

- implement Occupational Health and Safety requirements and practices;
- demonstrate the safe operation of a range of metal working machines



**Context of and specific resources for assessment**

- Evidence should include the demonstration of competency in a working or simulated working environment.
- The candidate will have access to all tools, equipment, materials and documentation required. The candidate will be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
- This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

**Method of assessment**

Evidence can be gathered through a variety of ways including:

- observation of processes and procedures such as machine set up;
- oral and/or written questioning on required knowledge and skills such as locating faults;
- testimony from supervisors, colleagues, clients and/or other appropriate persons, for example, on effectiveness of communication skills;
- inspection of the final product or outcome such as the fixing of guards;
- a portfolio of documentary evidence such as maintenance records or photographs.



## Appendix 1 - Minutes of Steering Committee Meetings

### Course in Safe Use of Machinery for Technology Teaching

#### Project Steering Committee – Meeting 1, 13 July 2012

Box Hill Institute of TAFE, Nelson Campus, G1.11, 10.00am to 1.00pm

#### Attendance

Carolyn Clancy	Australian Education Union
Lorraine Tran	Victorian Curriculum and Assessment Authority
Paul O'Halloran	DEECD, Employee Health Unit
Maxwell Andrews	Holmesglen Institute of TAFE
Brett Thompson	WorkSafe Victoria
David Melhuise	DEECD, Loddon Mallee Regional Office

#### Apologies

David Fletcher	Design and Technology Teachers Association Victoria
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#### In attendance

George Adda	Project Manager, Box Hill Institute of TAFE
Beverly Adams	Project writer

#### Welcome and introduction to steering committee members

Members of the committee were welcomed and Maxwell Andrews was elected as the chairperson. It was explained that Jill Livett is representing David Fletcher who was not able to attend the first meeting.

#### Role of the steering committee

George Adda reviewed the role of steering committee members and the accreditation process. There were no questions.

#### Background to the project

The existing course was developed on behalf of the Department of Education and Early Childhood Development in response to accidents and injuries sustained by teachers and students when working with machinery. A skills gap for technology teachers in secondary schools in the safe operation and in the conduct of basic maintenance of a wide range of machines used in wood and metal technology education was identified. A range of other needs were identified by DEECD in addition to the development of a short course for teachers in the safe operation of wood and metal machinery. There was extensive discussion on issues associated with technology teaching and technology teachers that the committee agreed were not relevant to the reaccreditation process and included:





- the need for professional certification standards for technology teachers
- differences in standards of delivery
- problems with delivery of the course in some school environments
- additional training of teachers in machinery operation
- on-going professional development and review of competency.

Despite the range of general issues associated with technology education in schools, most schools have at least one teacher who has been through the short course. It is apparent that a similar model is being used by many schools for their students and an increased number of schools provide technology students with risk assessment sheets.

### **Vocational outcomes**

The committee had a lengthy discussion on the vocational outcomes of the course that included the purpose of the course as well as the skills not included in the course. Much of the discussion focussed on occupational health and safety and duty of care. It was agreed and clearly understood that the course is not intended to provide skills in teaching, student management or in the operation of machines to complete activities. Its focus is on occupational health and safety in technology classrooms and safety requirements in the operation and maintenance of wood and metal machinery.

It was agreed that the purpose and vocational outcomes of the course as described in the accreditation submission need to focus narrowly on the technology classroom rather than, for example, on generic occupational health and safety and duty of care in a school setting.

### **Draft course structure**

The committee reviewed the existing course structure and agreed that the three areas of training were still relevant but decided to review the nominal duration of each unit after reviewing their content.

### **Units of competency**

As part of the review of units, it was agreed that the draft industry survey be circulated to practitioners to validate or modify the course skills and knowledge. The survey will be sent to the networks for design and technology teachers and systems and engineering teachers by the VCAA and to the membership of the Design and Technology Education Association Victoria. The survey will also be given to a group of technology teachers prior to commencement of the existing course to determine participant expectations.

There was some discussion on the need to ask former course participants to what extent the course had met its broad objectives. Participant evaluations were tabled which had collected information on the extent participants felt that the outcomes of the course had been addressed and the level of skill achieved. Evaluations also collected information on the quality of trainers, resources, promotion and marketing, catering, timing, relevance for individual schools, value for money and assessment procedures.



The difference between a participant evaluation and a survey to validate skills and knowledge was discussed. Issues not relevant to the reaccreditation project such as teacher student ratios were raised in the evaluations but the content of the course was consistently rated as high.

The committee agreed to have a preliminary review of the unit Apply OH&S principles to technology teaching. The discussion was wide ranging and included issues associated with materials safety and handling, machinery operation, student engagement and management and the layout of and access to machinery. Applied OH&S skills and knowledge are included in the other two course units and will need to be taken into account when reviewing this unit. Overall, the committee agreed that the focus of the unit was too generic and should more clearly reflect the purpose and outcomes of the course.

### **Other business**

There was no other business.

### **Next meeting**

Members will be advised of the date for the second steering committee meeting following receipt of feedback on occupational health and safety content and the results of the industry survey.



**Course in Safe Use of Machinery for Technology Teaching**  
**Project Steering Committee – Meeting 2, 3 October 2012**  
**Box Hill Institute of TAFE, Nelson Campus, G1.11, 10.00am to 1.00pm**

**Attendance**

Lorraine Tran	Victorian Curriculum and Assessment Authority
Paul O'Halloran	DEECD, Employee Health Unit
David Fletcher	Design and Technology Teachers Association Victoria
Brett Thompson	WorkSafe Victoria

**Apologies**

Carolyn Clancy	Australian Education Union
David Melhuise	DEECD, Loddon Mallee Regional Office
Maxwell Andrews	Holmesglen Institute of TAFE

**In attendance**

George Adda	Project Manager, Box Hill Institute of TAFE
Beverly Adams	Project writer

**Attendance**

Members of the committee were welcomed and it was agreed that Brett Thompson would chair in the absence of Maxwell Andrews. Apologies were received from Carolyn Clancy, Maxwell Andrews and David Melhuise.

**Minutes of meeting 1: 13 July 2012**

David Fletcher asked that the name of the association he represents be corrected and shown as Design and Technology Teachers Association Victoria rather than Design and Technology Education Association Victoria. It was then agreed that the minutes were an accurate record of the previous meeting. Moved – Lorraine Tran; Seconded – Paul O'Halloran.

**Industry survey**

As agreed at the previous meeting, a survey was circulated to practitioners to validate the course content or as the basis for modifying the course skills and knowledge. The survey was sent to technology teachers through the VCAA and through the Design and Technology Teachers Association Victoria. The survey was also distributed to a group of teachers who were undertaking the course.

The survey results were distributed to the meeting and supported the continued need for machinery specific safety training. In relative terms, the areas which scored the least high were housekeeping and clean-up. The areas which scored the highest were: adjustments to machinery to achieve correct set-up prior to use; safe operating



procedures; settings of fences and guides. The survey results were seen as an endorsement of the course skills and knowledge.

## Units of competency

At the previous meeting, the committee agreed that the focus of the unit *Describe the OH&S responsibilities for technology teachers* was too generic and should be rewritten to more clearly reflect the purpose and outcomes of the course. A draft revised unit was circulated to the committee and extensive feedback was incorporated and a second draft was circulated prior to the meeting for discussion. A summary of the changes made to the second draft are as follows:

- The title was amended to *Investigate the OH&S responsibilities of technology teachers*
- The unit descriptor was amended in line with the changed focus of the unit and includes statements clarifying that the unit applies to OH&S in group based learning and focuses on: assessing and control risks; identifying hazards; responding to emergencies; sourcing OH&S information; OH&S roles of key school personnel
- The unit focus is on OH&S related to wood and metal machinery operation rather than more broadly to technology teaching
- Element one was amended from *Maintain awareness of all relevant OH&S risk management requirements to- Describe OH&S requirements relevant to wood and metal technology teaching*
- Element two was amended from *Keep immediate technology teaching environment safe to Assess and manage risks in a wood and metal technology teaching environment*
- Extensive revisions were made to the performance criteria to align them with the rewritten elements
- Extensive revision were made to the required skills and knowledge and range statements to align them with the unit descriptor, elements and performance criteria
- The critical aspects for assessment were revised.

The units *Safely operate and maintain wood working machines* and *Safely operate and maintain metal working machines* were reviewed by members prior to the meeting and revisions were discussed and agreed to. Amendments included:

- Reference to registration with the Victorian Institute of Teaching was deleted from the unit descriptor
- OH&S unit deleted as a pre-requisite
- PC2.6 expanded to include reference to isolation procedures
- Lockout and isolation procedures added as PC3.6
- Operating wood/metal working machines safely added to required skills
- Handling and stacking materials deleted from required skills
- Materials handling deleted from required knowledge
- Reference to guarding included in required knowledge for machine protective equipment
- Range statements were reviewed and revised.



## Accreditation Submission

The submission was circulated prior to the meeting and reviewed by members. In light of the revisions to the three course units, the committee reviewed the course structure and nominal duration of units. The agreed changes were as follows:

- The nominal duration of *Investigate the OH&S responsibilities of technology teachers* was reduced from eight hours to four hours
- The nominal duration of *Safely operate and maintain wood working machines* remains unchanged
- The nominal duration of *Safely operate and maintain metal working machines* was increased by four hours to twelve hours
- The OH&S pre-requisite for *Safely operate and maintain wood working machines* and *Safely operate and maintain metal working machines* was removed
- It was agreed that the period of accreditation should be for the period 1 January 2013 to 31 December 2017.

## Course Contents Endorsement form

Copies of the Course Contents Endorsement form were distributed to steering committee members. It was explained that each member needed to sign a form to confirm that they agreed with the content. Members were given an opportunity to raise any issues, ask questions or suggest further revisions to the course documentation. It was agreed that a final draft of the course reflecting the revisions made at the meeting would be circulated and if there were no issues, members would return their signed forms. This provides members unable to attend the meeting an opportunity to raise any issues or questions. If needed, a third meeting will be scheduled. Members present unanimously supported the course.

## Timelines

The course will be distributed to two accreditation advisors for review against the national standards for accreditation. An accreditation panel will meet to make a recommendation to the VRQA on the course accreditation. An industry representative from the steering committee will be a member of the panel. It is expected that the panel meeting will take place in late November or December.

## Other business

Brett Thompson advised that the WorkSafe Victoria's legal advisors may not allow him to sign the course contents endorsement form. He will confirm this and advise G. Adda. Brett was advised that this has occurred in the past



where a steering committee includes a WorkSafe representative and the accreditation authority is aware of this issue. WorkSafe Victoria's participation on the steering committee as shown through the minutes provides evidence that the course outcomes are consistent with appropriate occupational health and safety considerations.



## Appendix 2 - Skills and Knowledge Survey

### Skills and Knowledge Profile

#### SUMMARY

#### Course in Safe Use of Machinery in Technology Teaching – Survey Summary

The Course in Safe Use of Machinery of Technology Teaching addresses a skills gap identified for technology teachers in secondary schools on the safe operation and conduct of basic maintenance of a wide range of static powered machines used in wood and metal technology education.

Legend							
5 = critical		4 = very important		3 = important		2 = less important	1 = not important
Skills and Knowledge		5	4	3	2	1	
1	Use of personal protective equipment/apparel	17	3	4	2		
2	Machine guarding required for common machine operation	17	7	1	1		
3	Adjustments to machinery to achieve correct set-up prior to use	16	9	1			
4	Use of emergency stop buttons	18	5	1	2		
5	Use of lock out devices	14	5	6	1		
6	Use of extraction systems	9	10	7			
7	Schedule for routine machine maintenance	10	13	3			
8	Machine malfunction triggers or indicators	11	12	3			
9	Appropriate work for different types of machines	11	11	3	1		
10	Accessories required for correct machine operation	15	6	4	1		
11	Housekeeping requirements	10	8	7	1		
12	Required operator work space	13	10	2	1		
13	Safe operating procedures	20	4	2			
14	Pre-operation safety checks	17	7	2			
15	Settings of fences and guides	15	6	5			
16	Machine shut down procedures	13	8	4	1		
17	Clean up requirements	11	9	4	1	1	
18	Lock down requirements	14	5	6	1		



19	Hazards and risks associated with technology teaching	17	8	1		
20	Emergency procedures	18	6	2		
21	OH&S risk management requirements	18	6	2		

**General comments:**

Where it is important to have this courses in place. I think that there needs to be a clamp down on unqualified teachers participating in technology subjects which involve the use of hand tools and machinery. There are far too many incidents occurring due to the 'teacher' lacking the experience needed to work and teach safely in a workshop environment. An art teacher is not a machinist, engineer, mechanic, and builder. These types of teacher should be made to retrain or stay out of the areas which create significant danger to themselves and more importantly the students.

The education department wastes a lot of resources on OHS and have outsourced to a company to audit each department in view of safety and SOP's etc but if the teacher or the education authority hasn't got a clue about how to use the machine, it renders the Safe Use of Machinery within Technology course pointless and futile.

OHS for hand held machinery such as jigsaws, biscuit cutters

More information about student management, we are experiencing difficulties with upper management with OH&S issues V fitting more students into a class,

\* The number of students that should be in the class, per teacher ratio for safe class management.

\* How to safely supervise students in a welding bay, whilst others are working with other dangerous equipment.

It would also be good to get a list of suppliers of the things we need to make our workshops safer.

Allocated time to communicate with colleagues about issues of machine malfunction, maintenance and requirements is very important as sometimes there is no opportunity to do so.

How to correctly and safely set-up and use the machine, including pre-cautions.

