

22573VIC Certificate II in Signage and Graphics

This course has been accredited under Part 4.4 of the Education and Training Reform Act 2006.

Accreditation period: 1 January 2021 to 31 December 2025

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Section A: Copyright and course classification information

1. Copyright owner of the course	<p>Copyright of this course is held by the Department of Education and Training, Victoria</p> <p>© State of Victoria (Department of Education and Training) 2021.</p>
2. Address	<p>Deputy CEO Victorian Skills Authority Department of Jobs, Skills, Industries and Regions (DJSIR) GPO Box 4509 MELBOURNE VIC 3001</p> <p>Organisational contact Manager, Training and Learning Products Unit Engagement Branch Victorian Skills Authority Department of Jobs, Skills, Industries and Regions (DJSIR) Email: course.enquiry@djsir.vic.gov.au</p> <p>Day-to-Day Contact: Curriculum Maintenance Manager - Building and Construction Holmesglen Institute PO Box 42 HOLMESGLEN VIC 3148 Telephone: 03 9564 1987 Email: teresa.signorello@holmesglen.edu.au</p>
3. Type of submission	<p>Reaccreditation.</p>
4. Copyright acknowledgement	<p>Copyright of this course is held by the Department of Education and Training, Victoria</p> <p>© State of Victoria (Department of Education and Training) 2021.</p> <p>The following unit of competency:</p> <ul style="list-style-type: none"> • CPCCCM2010B Work safely at heights <p>is from the <i>CPC08 Construction, Plumbing and Services Training Package</i> administered by the Commonwealth of Australia.</p> <p>The following unit of competency:</p> <ul style="list-style-type: none"> • CPCCCM1014 Conduct workplace communication • CPCCCM1015 Carry out measurements and calculations • CPCCSG3016 Prepare surfaces for signs • CPCCWHS1001 Prepare to work safely in the construction industry • CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry

	<p>is from the <i>CPC Construction, Plumbing and Services Training Package</i> administered by the Commonwealth of Australia.</p> <p>The following unit of competency:</p> <ul style="list-style-type: none"> • HLTAID011 Provide first aid <p>is from the <i>HLT Health Training Package</i> administered by the Commonwealth of Australia.</p> <p>© Commonwealth of Australia</p>
5. Licensing and franchise	<p>Copyright of this material is reserved to the Crown in the right of the State of Victoria.</p> <p>© State of Victoria (Department of Education and Training) 2021.</p> <p>This work is licensed under a Creative Commons Attribution-NoDerivs 3.0 Australia licence (here).</p> <p>You are free to use copy and distribute to anyone in its original form as long as you attribute Higher Education and Skills Group, Department of Education and Training (DET) as the author and you license any derivative work you make available under the same licence.</p> <p>Request for other use should be addressed to:</p> <p>Executive Director Engagement, Participation and Inclusion Higher Education and Skills Department of Education and Training (DET) Email: course.enquiry@education.vic.gov.au</p> <p>Copies of this publication can be downloaded free of charge from the DET website at (here)</p>
6. Course accrediting body	Victorian Registration and Qualifications Authority
7. AVETMISS information	<p>ANZSCO Code – 399611 Signwriter</p> <p>ASCED Code –0403 Building</p> <p>National Course Code: 22573VIC</p>
8. Period of accreditation	1 January 2021 to 31 December 2025



Section B: Course information

1. Nomenclature		<i>Standard 1 AQTF Standards for Accredited Courses</i>
1.1 Name of the qualification	Certificate II in Signage and Graphics	
1.2 Nominal duration of the course	402 hours	
2. Vocational or educational outcomes		<i>Standard 1 AQTF Standards for Accredited Courses</i>
2.1 Purpose of the course	The purpose of the Certificate II in Signage and Graphics is to provide graduates with the basic skills and knowledge to prepare students for an apprenticeship within the signage and graphics industry.	
3. Development of the course		<i>Standards 1 and 2 AQTF Standards for Accredited Courses</i>
3.1 Industry/enterprise/community needs	<p>The Specialised Design Service (SDS) industry incorporates the sectors of signwriting, graphic, interior and other specialised design services. Collectively it is worth \$5.6 billion and is forecast to grow 2.2% annually up to 2024¹.</p> <p>Signage industry demand is mainly driven by the retail/commercial industry and subject to a high level of technological change. Major Australian retail chains' increasing adoption of digital signage has driven growth in recent times, with the digital signage market forecast to reach over \$130 million by 2020².</p> <p>Advancements in design software and technology have created market efficiencies and potential for profit maximisation through increased turn over for signage businesses, for example, reducing the time required to complete design services and shortening turn-around times for clients³.</p> <p>Due to the benefits of digitisation, the speed of technical change and the widespread use of technology within the industry, a dynamic course is required that recognises digital literacy as a major foundation for skill development, promotes ongoing digital literacy capability/development and prepares students for technological agility. The re-accreditation of this course will address this skill and knowledge requirement.</p>	

¹ <http://clients1.ibisworld.com.au/reports/au/industry/ataglance.aspx?entid=564>

² <https://www.beroeinc.com/category-intelligence/signage-australia-market/>

³ <http://clients1.ibisworld.com.au/reports/au/industry/ataglance.aspx?entid=564>



	<p>Prior to COVID-19, research reported that ‘an increase in business numbers has supported demand for signwriting services over the past five years’⁴.</p> <p>While industry demand exists, the domestic labour supply is insufficient. The occupation of ‘signwriter’ was listed on the Shortage Skills Occupation List for Australia for 2019⁵. As a result, the course was placed on the TAFE Free Priority Course List on 1 January 2019 and the accreditation period extended by twelve months to 31 December 2020, to determine the effects of the government initiative.</p> <p>Official enrolment figures for 2019 (second half) and 2020 indicate the initiative has not impacted course demand.</p> <p>Anecdotal evidence attributes low course uptake to a lack of course awareness, with poor course/trade promotion by industry cited as a significant underpinning factor, rather than industry need.</p> <p>Discussions with the peak industry body, the Australian Sign and Graphics Association, confirmed the course intent is to provide a pathway into the apprenticeship qualification CPC30216 Certificate III in Signs and Graphics. The course reaccreditation provides the opportunity to align course outcomes with entry level industry skill requirements, particularly with regard to digital literacy and IT; feedback suggests this appeals to the school cohort.</p> <p>While the pandemic has had an adverse effect on the economy overall, the Federal and State governments have responded swiftly and implemented a range of short and medium-term initiatives to maintain business solvency, stimulate economic activity and sustain apprenticeship employment. These initiatives may help to support pipeline demand for skills training at the entry level.</p> <p>As at 2 June 2020, there were 171 job vacancies advertised on SEEK.com for ‘sign writer /sign installer’ around Australia. This course targets school students and school leavers as potential new entrants to the industry.</p> <p>This course has been developed to enable participants to achieve the underpinning skills, knowledge and ability to meet AQF Level 2 requirements and to provide them with a solid foundation from which to undertake future apprenticeship training at the Certificate III level.</p> <p>Preparatory courses such as this may assist apprenticeship course completions by providing the learner with:</p>
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⁴ <http://clients1.ibisworld.com.au/reports/au/industry/productsandmarkets.aspx?entid=564#PS>

⁵ <https://www.nwivisas.com/nwi-blog/australia/shortage-skills-occupation-list-for-australia-for-2019/>



	<ul style="list-style-type: none"> • an understanding of requisite signage and graphics trade outcomes to facilitate an informed choice regarding career pathway suitability • solid knowledge/skill underpinnings on which to build further learning. <p>There is no equivalent qualification at the national level. Review of the CPC Construction Plumbing and Services IRC Skills Forecast and Proposed Schedule of Work v.1-2019, and Annual Update 2020, by Artibus Innovation (the Skills Service Organisation (SSO) responsible for CPC & CPC08 Training Package product development) confirms that there are no plans to develop signage related qualifications at AQF II level.</p> <p>The ICP Printing and Graphic Arts Training Package was also reviewed, however there were no suitable components that were appropriate to meet the outcomes and intent of the course.</p> <p>A steering committee was formed to oversee the re-development and re- accreditation of the Certificate II in Signage and Graphics consisting of:</p> <table> <tr> <td>Mick Harrold (Chair)</td> <td>Australian Sign and Graphics Association (ASGA)</td> </tr> <tr> <td>Darryl Sutton</td> <td>Victorian Curriculum Assessment Authority (VCAA)</td> </tr> <tr> <td>Heather Chand</td> <td>Catholic Regional College (CRC) Sydenham</td> </tr> <tr> <td>Janine Thomas</td> <td>Catholic Regional College (CRC) Sydenham</td> </tr> <tr> <td>John Watters</td> <td>Australian Schools Industry Partnership (AusSIP)</td> </tr> <tr> <td>Paul Rice</td> <td>Ultra Signs</td> </tr> </table> <p>In attendance:</p> <table> <tr> <td>Teresa Signorello</td> <td>Executive Officer, Curriculum Maintenance Manager- Building and Construction, Holmesglen Institute of TAFE</td> </tr> <tr> <td>Maria Raucci</td> <td>Administrative Officer, Curriculum Maintenance Manager- Building and Construction, Holmesglen Institute of TAFE</td> </tr> </table> <p>In addition to phone and email consultations, the members of the steering committee met formally on three occasions via web meeting to review and confirm</p>	Mick Harrold (Chair)	Australian Sign and Graphics Association (ASGA)	Darryl Sutton	Victorian Curriculum Assessment Authority (VCAA)	Heather Chand	Catholic Regional College (CRC) Sydenham	Janine Thomas	Catholic Regional College (CRC) Sydenham	John Watters	Australian Schools Industry Partnership (AusSIP)	Paul Rice	Ultra Signs	Teresa Signorello	Executive Officer, Curriculum Maintenance Manager- Building and Construction, Holmesglen Institute of TAFE	Maria Raucci	Administrative Officer, Curriculum Maintenance Manager- Building and Construction, Holmesglen Institute of TAFE
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	<p>the required skills and knowledge outcomes of the course, course structure and final accreditation submission.</p> <p>The Certificate II in Signage and Graphics:</p> <ul style="list-style-type: none"> • does not duplicate, by title or coverage, the outcomes of an endorsed training package qualification • is not a subset of a single training package qualification that could be recognised through one or more statements of attainment or a skill set • does not include units of competency additional to those in a training package qualification that could be recognised through statements of attainment in addition to the qualification • does not comprise units that duplicate units of competency of a training package qualification. 												
<p>3.2 Review for re-accreditation</p>	<p>As well as consultation processes conducted for the review and redevelopment of the 22573VIC Certificate II in Signage and Graphics to ensure the course remains relevant and meets the needs of the Victorian signage and graphics industry, outcomes of monitoring and evaluation process as outlined in Section B:9 indicated that there was still a need for the course.</p> <p>Although no enrolment numbers were identified in the DET data, the Victorian Curriculum Assessment Authority (VCAA) advises that this course attracted approximately thirty-five (35) enrolments for 2020 via the VET Delivered to Secondary School Students (VETDSSS) program.</p> <table data-bbox="782 1299 1133 1668"> <thead> <tr> <th><i>Year</i></th> <th><i>Enrolments</i></th> </tr> </thead> <tbody> <tr> <td>2016</td> <td>42</td> </tr> <tr> <td>2017</td> <td>35</td> </tr> <tr> <td>2018</td> <td>33</td> </tr> <tr> <td>2019</td> <td>34</td> </tr> <tr> <td>2020</td> <td>35</td> </tr> </tbody> </table> <p>While enrolments have been steady, it is envisaged that the following significant changes to the reviewed course as a result of industry's input and strong support for new entrants into the industry, will drive an increase in enrolments:</p> <ul style="list-style-type: none"> • the updating of imported units where they had been revised and still considered relevant. The impact on revised imported units included: 	<i>Year</i>	<i>Enrolments</i>	2016	42	2017	35	2018	33	2019	34	2020	35
<i>Year</i>	<i>Enrolments</i>												
2016	42												
2017	35												
2018	33												
2019	34												
2020	35												



	<ul style="list-style-type: none"> • The updated units for the superseded units, <i>CPCCSI2002A Layout and design signage</i>, <i>CPCCSI2004 Produce digital signage</i> and <i>CPCCSI3011A Use LED technology for signage</i>, which were deemed non-equivalent, were not included into the revised course as they were now considered by the steering committee too high level and not appropriate for the course outcomes, resulting in a decrease in the number of total units of competency to be completed. • The unit HLTAID002 Provide basic emergency life support was replaced with HLTAID011 Provide first aid to better reflect industry needs. • the revision and updating of existing enterprise units of competency for improvements, including: <ul style="list-style-type: none"> • elements, performance criteria, required skills and knowledge and evidence guide clarified and updated to reflect current industry terminology and technological advancements and requirements. • content related to sign layout and design, printing and laminating and basic LED technology, originally included as imported units, have been incorporated within the revised VU23072 <i>Produce basic signs</i> and VU23073 <i>Produce basic computer aided manufactured vinyl signs</i> units. As a result of this, the <i>CPCCSI2002A Layout and design signage</i> prerequisite for both units was removed. • the development of a new enterprise unit, VU23075 <i>Operate a CNC machine to produce signage components</i>, to address a skill gap in technology used in the industry. • changes to the course structure to include choice of one elective in producing sign components using either a CNC machine or flatbed router reflecting signage businesses using either technology • title of VU21693 Operate a flatbed router unit amended to VU23074 Operate a flatbed router to produce signage components to better reflect unit outcomes. <p>Transition arrangements</p> <p>The revised 22573VIC Certificate II in Signage and Graphics replaces and is equivalent to the 22285VIC Certificate II in Signage and Graphics. There should be no new enrolments in 22285VIC after its expiry date of 31 December 2020.</p> <p>The following table show the transition arrangements from the 22285VIC to the revised 22573VIC Certificate II in Signage and Graphics for learners currently enrolled in the existing courses.</p> <p>For more details regarding the updates/changes to imported units from national training packages, refer to the National Register (here).</p>
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22285VIC Certificate II in Signage and Graphics unit code and title	22573VIC Certificate II in Signage and Graphics unit code and title	Comment on equivalence E = Equivalent NE = Not Equivalent
CPCCCM1015A Carry out measurements and calculations	CPCCCM1015 Carry out measurements and calculations	NE
CPCCCM2010B Work safely at heights	CPCCCM2010B Work safely at heights	No Change
CPCCOHS1001A Work safely in the construction industry	CPCCWHS1001 Prepare to work safely in the construction industry	E Revised unit
CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry	CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry	E Revised unit
CPCCSI2002A Layout and design signage	VU23072 Produce basic signs	Unit removed Layout content added to these units
	VU23073 Produce basic computer aided manufactured vinyl signs	
CPCCSI2003A Prepare surfaces for signage	CPCCSG3016 Prepare surfaces for signs	E Revised unit
CPCCSI2004A Produce digital signage	VU23073 Produce basic computer aided manufactured vinyl signs	Unit removed Printing content added to this unit
CPCCSI3011A Use LED technology for signage	VU23072 Produce basic signs	Unit removed. Basic LED technology content added to this unit
HLTAID002 Provide basic emergency life support		Unit removed
	HLTAID011 Provide first aid	Imported unit added



22285VIC Certificate II in Signage and Graphics unit code and title	22573VIC Certificate II in Signage and Graphics unit code and title	Comment on equivalence E = Equivalent NE = Not Equivalent
VU21692 Use sign industry tools and equipment	VU23071 Use sign industry tools and equipment	E Revised and updated
VU21693 Operate a flatbed router	VU23074 Operate a flatbed router to produce signage components	E Revised and updated
VU21694 Produce basic signs	VU23072 Produce basic signs	NE Revised and updated. Prerequisite CPCCSI2002A Layout and design signage removed and added as content Basic LED technology content added to this unit
VU21695 Produce basic computer aided manufactured vinyl signs	VU23073 Produce basic computer aided manufactured vinyl signs	NE Revised and updated. Prerequisite CPCCSI2002A Layout and design signage removed and added as content Printing content added to this unit
VU21696 Conduct workplace communication		Unit removed
	CPCCCM1014 Conduct workplace communication	Import unit added
	VU23075 Operate a CNC machine to produce signage components	New unit



4. Course outcomes	Standards 1, 2, 3 and 4 AQTF Standards for Accredited Courses
<p>4.1 Qualification level</p>	<p>The course outcomes of the 22573VIC Certificate II in Signage and Graphics are consistent with the distinguishing features of the learning outcomes specified in the Australian Qualifications Framework.</p> <p>Graduates of the Certificate II in Signage and Graphics will have:</p> <ul style="list-style-type: none"> • knowledge and skills for work in a defined context and further learning. • basic factual, technical and procedural knowledge of a defined area of work and learning within the signage and graphic industry. For example: <ul style="list-style-type: none"> • safety requirements in a signage work site • tools and equipment used in the signage and graphics industry. • sign production methods and procedures. • basic cognitive, technical and communication skills to apply appropriate methods, tools, materials and readily available information to undertake a defined range of skills. For example: <ul style="list-style-type: none"> • safe handling of signage hand and power tools • interpreting basic drawings and design sign layout documentation • performing basic measurements and calculations • communicating effectively in the workplace • provide solutions to a limited range of predictable problems that may arise in a signage and graphics environment. For example: <ul style="list-style-type: none"> • recognising and reporting faults and problems in sign layout, signage production, quality, surface preparation, vinyl application and digital printing • recognising and responding to life threatening emergencies using basic life support measures • apply knowledge and skills to demonstrate autonomy and limited judgement in structured and stable contexts and within narrow parameters. For example: <ul style="list-style-type: none"> • identifying and obtaining the required materials, tools and equipment for the task • planning and completing tasks in appropriate sequence and to deadlines. <p>The volume of learning for this course is 0.5 to 1 year, typical for a Certificate II qualification, and incorporates a range of learning activities such as:</p>



	<ul style="list-style-type: none"> • structured activities to develop the technical skills of the course and the theoretical knowledge that underpins performance • unstructured activities to reinforce and practice skills.
4.2 Employability skills	<p>The following table contains a summary of the employability skills for the 22573VIC Certificate II in Signage and Graphics. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this course. The outcomes described here are broad industry requirements and will vary according to electives undertaken.</p> <p>This table is a summary of employability skills that are typical of the outcomes of this course and should not be interpreted as definitive.</p>
<i>Employability Skill</i>	<i>Industry/enterprise requirements for this qualification include the following facets. On successful completion of the course a graduate should be able to:</i>
Communication that contributes to productive and harmonious relations across employees and customers	<ul style="list-style-type: none"> • apply face to face and visual communication in the workplace • complete basic workplace documentation and reports • gather, convey and receive information • participate in simple meetings • read and interpret documentation, drawings, specifications and instructions • record calculations and material quantities • report incidences, faults, hazards and risks to supervisor • use appropriate terminology in task related communication • use clear and direct communication and questioning to identify and confirm task requirements.
Teamwork that contributes to productive working relationships and outcomes	<ul style="list-style-type: none"> • work with others to coordinate and action tasks either as a group or individual • work with others to ensure a safe working environment.
Problem solving that contributes to productive outcomes	<ul style="list-style-type: none"> • complete measurements and calculations for material requirements and sign layout • identify and obtain required tools and equipment with materials required for tasks



Employability Skill	Industry/enterprise requirements for this qualification include the following facets. On successful completion of the course a graduate should be able to:
	<ul style="list-style-type: none"> • identify basic problems and faults with tools and equipment and sign production and take action to rectify known faults and problems. • plan and complete tasks in appropriate sequence.
Initiative and enterprise that contribute to innovative outcomes	<ul style="list-style-type: none"> • adapt knowledge and skills to new situations and different contexts • contribute to sign layout and design.
Planning and organising that contribute to long and short-term strategic planning	<ul style="list-style-type: none"> • identify and assess safety risks, incidents and emergencies and identify procedures • identify and prepare work area, required tools, equipment and materials according to sign production requirements • plan and complete tasks in appropriate sequence and allocated time • plan and prepare for safe work practices.
Self-management that contributes to employee satisfaction and growth	<ul style="list-style-type: none"> • review and monitor own performance against signage and quality requirements • follow safety practices and procedures during sign production • take responsibility for planning and organising own work to complete assigned tasks.
Learning that contributes to ongoing improvement and expansion in employee and company operations and outcomes	<ul style="list-style-type: none"> • apply knowledge of the characteristics of tools and equipment, technical capabilities, limitations and procedures to work tasks • ask questions to expand own industry knowledge and skills • assess the nature of preparation required for signage tasks.
Technology that contributes to the effective carrying out of tasks	<ul style="list-style-type: none"> • use tools and equipment safely • use technology to calculate basic weights, distances, areas and volumes • use computer, relevant software and industry standard equipment for signage production and digital printing



Employability Skill	Industry/enterprise requirements for this qualification include the following facets. On successful completion of the course a graduate should be able to:			
	<ul style="list-style-type: none"> • use a range of digital technology. 			
4.3 Recognition given to the course	Not applicable			
4.4 Licensing/regulatory requirements	<p>There are no licensing or regulatory requirements for this course however WorkSafe Victoria will require all people who work on a construction site to have proof of having completed a general occupational health and safety (OHS) construction induction for the industry. The unit <i>CPCCWHS1001 Prepare to work safely in the construction industry</i> is recognised by WorkSafe Victoria for the registration of construction workers for Occupational Health and Safety induction.</p> <p>While workplace training and assessment is not mandated by the course, it is likely some learners may visit worksites as part of the course.</p>			
5. Course rules	Standards 2, 6, 7 and 9 AQTF Standards for Accredited Courses			
5.1 Course structure				
To achieve the Certificate II in Signage and Graphics, 11 units of competency must be completed, including:				
<ul style="list-style-type: none"> • all 10 core units • one elective unit selected from the electives listed below. 				
A Statement of Attainment will be issued for each unit of competency completed if the full qualification is not completed.				
Unit of competency code	Field of Education code (six-digit)	Unit of competency title	Pre-requisite	Nominal hours
Core units				
CPCCCM1014	120505	Conduct workplace communication	Nil	20
CPCCCM1015	010101	Carry out measurements and calculations	Nil	20
CPCCCM2010B	061301	Work safely at heights	CPCCOHS2001A Apply OHS requirements, policies and	8



			procedures in the construction industry	
CPCCSG3016	040325	Prepare surfaces for signs	Nil	20
CPCCWHS1001	061301	Prepare to work safely in the construction industry	Nil	6
CPCCWHS2001	061301	Apply WHS requirements, policies and procedures in the construction industry	Nil	20
HLTAID011	069907	Provide first aid	Nil	18
VU23071	040325	Use sign industry tools and equipment	CPCCCM1015 Carry out measurements and calculations CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry	40
VU23072	040325	Produce basic signs	Nil	100
VU23073	040325	Produce basic computer aided manufactured vinyl signs	Nil	130
<i>Elective units</i>				
VU23074	030111	Operate a flatbed router to produce signage components	CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry	20
VU23075	030111	Operate a CNC machine to produce signage components	CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry	20
Total nominal hours				402



<p>5.2 Entry requirements</p>	<p>There are no entry requirements for the 22573VIC Certificate II in Signage and Graphics.</p> <p>Learners enrolling in the Certificate II in Signage and Graphics are best equipped to successfully undertake the qualification if they have learning, literacy, numeracy and oral communication skills equivalent to Australian Core Skills Framework (ACSF) Level 2.</p> <p>Full details and descriptors can be found on the Department of Education and Training website (here).</p> <p>Learners with language, literacy and numeracy skills at lower levels than those suggested may require additional support to successfully undertake the qualification.</p>
<p>6. Assessment</p>	<p><i>Standards 10 and 12 AQTF Standards for Accredited Courses</i></p>
<p>6.1 Assessment strategy</p>	<p>All assessment, including Recognition of Prior Learning (RPL), must be compliant with the requirements of:</p> <ul style="list-style-type: none"> • Standard 1 of the AQTF: Essential Conditions and Standards for Initial Registration and the AQTF: Essential Conditions and Standards for Continuing Registration, <p>or</p> <ul style="list-style-type: none"> • the Standards for Registered Training Organisations 2015 (SRTOs), <p>or</p> <ul style="list-style-type: none"> • the relevant standards for RTOs at the time of assessment. <p>These standards ensure that the assessment strategies meet the requirement of the course.</p> <p>The nature of work undertaken in the signage and graphics industry is hands on and practical and therefore the assessment strategies should reflect this. It is recommended that assessment be a holistic process that integrates a number of units in practical tasks or projects. Assessment strategies should reflect a range of variables, the underpinning skills and knowledge and the assessment requirements specified in each unit.</p> <p>Assessment strategies for the imported units from training packages should be consistent with the Assessment Requirements for the relevant training package.</p> <p>The Assessment Evidence for the accredited units of competency provide suggested assessment methods for each of the units, however the following methods,</p>



	<p>unless otherwise stated are also appropriate for the units of competency in this accredited course:</p> <ul style="list-style-type: none"> • analysis of responses to case studies and scenarios • observation of demonstrated techniques over time and in a range of situations • observation of, or evidence of, interactions with team members • presentations and discussions • roleplays • written and/or oral questions to assess required knowledge.
<p>6.2 Assessor competencies</p>	<p>Assessment must be undertaken by a person or persons in accordance with:</p> <ul style="list-style-type: none"> • Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration, <p>or</p> <ul style="list-style-type: none"> • the Standards for Registered Training Organisations 2015 (SRTOs), <p>or</p> <ul style="list-style-type: none"> • the relevant standards for RTOs at the time of assessment. <p>All assessment of units of competency imported from training packages must reflect the requirements for assessors specified in the relevant training packages.</p>
<p>7. Delivery <i>Standards 11 and 12 AQTF Standards for Accredited Courses</i></p>	
<p>7.1 Delivery modes</p>	<p>It is recommended that the units of the Certificate II in Signage and Graphics be delivered in accordance with the sign production process, while ensuring that prerequisite requirements are met.</p> <p>The units may be delivered as stand-alone programs such as introductory classes, or they may be integrated holistically with a number of units. The units have been developed to support a variety of applications within the context of the suggested range of variables. This particularly involves the use of practical industry-based activities and/or projects to develop knowledge and skills.</p> <p>Practical exercises may take the form of realistic, holistic projects to provide the participants with 'real work' experience. Appropriate projects may include:</p> <ul style="list-style-type: none"> • community projects • redevelopments



	<ul style="list-style-type: none"> • work on new signs • practical tasks within simulated work environments. <p>Owing to the potentially hazardous nature of some of the units of the program it is required that RTO staff undertake a job safety analysis of the practical activities according to WHS/OHS requirements.</p> <p>Learners who engage in structured workplace learning as part of VET Delivered to Secondary School Students as well as other learners, must complete <i>CPCWHS1001 Prepare to work safely in the construction industry</i> prior to visiting, commencing training or assessment in the workplace.</p>
<p>7.2 Resources</p>	<p>Resources that are essential for the delivery of the Certificate II in Signage and Graphics include:</p> <ul style="list-style-type: none"> • classroom/workshop with learning resources • a safe work site or simulated environment reflective of the workplace that includes: <ul style="list-style-type: none"> • signage industry tools and equipment, materials, including personal protective and safety equipment • flatbed router and routing software and applicable components • or CNC machine • task requirements, including relevant drawings and specifications • relevant industry standards, building codes and regulations <p>Trainers/assessors should refer to the individual units of competency for specific resource requirements.</p> <p>Training must be undertaken by a person or persons in accordance with:</p> <ul style="list-style-type: none"> • Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration, <p>or</p> <ul style="list-style-type: none"> • the Standards for Registered Training Organisations 2015 (SRTOs), <p>or</p> <ul style="list-style-type: none"> • the relevant standards for RTOs at the time of assessment. <p>Units of competency imported from training packages must reflect the requirements for resources/trainers specified in that training package or accredited course.</p>



8. Pathways and articulation	Standard 8 AQTF Standards for Accredited Courses
	<p>The Certificate II in Signage and Graphics includes units of competency from the <i>HLT Health Package</i>, <i>CPC Construction, Plumbing and Services</i> and <i>CPC08 Construction, Plumbing and Services</i> training packages. Individuals who already hold any of these units or equivalent may be eligible to gain credit transfer in entering the course, and for any qualifications or courses they may undertake in the future that contain the units completed as part of this course, in particular pathways into CPC Construction, Plumbing and Services qualifications.</p>
9. Ongoing monitoring and evaluation	Standard 13 AQTF Standards for Accredited Courses
	<p>The Curriculum Maintenance Manager for Building Industries is responsible for the ongoing monitoring and evaluation of the Certificate II in Signage and Graphics.</p> <p>Formal course evaluations will be undertaken halfway through the accreditation period and will be based on student and teacher evaluation surveys and industry stakeholder surveys/consultations.</p> <p>The VRQA will be notified of significant changes to the course resulting from course monitoring and evaluation processes.</p>



Section C—Units of competency

Following is the list of units of competency imported from training packages, which can be downloaded from the National Register ([here](#)):

- CPCCCM1014 Conduct workplace communication
- CPCCCM1015 Carry out measurements and calculations
- CPCCCM2010B Work safely at heights
- CPCCSG3016 Prepare surfaces for signs
- CPCCWHS1001 Prepare to work safely in the construction industry
- CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry
- HLTAID011 Provide first aid.

Following is the list of units of competency developed for the course and detailed in this section of the course document:

- VU23071 Use sign industry tools and equipment
- VU23072 Produce basic signs
- VU23073 Produce basic computer aided manufactured vinyl signs
- VU23074 Operate a flatbed router to produce signage components
- VU23075 Operate a CNC machine to produce signage components.

Unit code VU23071

Unit title Use sign industry tools and equipment

Unit Descriptor This unit provides the knowledge and skills required to select, prepare and safely handle the basic tools and equipment used in the signage and graphics industry.

It includes the ability to plan the use of, prepare and handle tools and equipment, clean up after use, and report on faulty tools and equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Employability Skills This unit contains Employability Skills.

Pre-requisite Units CPCCOHS1001A Work safely in the construction industry
CPCCCM1015 Carry out measurements and calculations
CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry

Application of the Unit This unit applies to individuals who under close supervision and guidance, develop a defined and limited range of skills and knowledge in the safe use of sign hand and power tools and equipment in preparation for entering the signage and graphic industry. They use a limited range of judgement and follow instructions specified by the supervisor.

ELEMENT

Elements describe the essential outcomes of a unit of competency.

1 Plan and prepare to use signage tools and equipment

PERFORMANCE CRITERIA

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.

- 1.1 Identify and confirm supervisor's instructions and ***specifications*** for preparing and using signage tools and equipment for ***specific tasks***
- 1.2 Identify ***workplace safety requirements*** for preparing and using tools and equipment for signage tasks
- 1.3 Identify signage or barricade requirements for preparing and using tools and equipment for signage tasks
- 1.4 Identify ***environmental requirements*** for preparing and using tools and equipment for signage tasks



- | | | |
|---|---|--|
| | 1.5 | Identify required tools and equipment and materials to carry out specific tasks |
| | 1.6 | Select and use the appropriate personal protective equipment (PPE) for specific tools and equipment |
| | 1.7 | Complete pre-operational checks on tools and equipment according to supervisor instructions and manufacturer specifications, |
| | 1.8 | Rectify or report faults according to procedures |
| 2 | Use signage tools | |
| | 2.1 | Use required hand tools for the specific tasks and materials according to safety requirements |
| | 2.2 | Use required power and/or pneumatic tools for specific tasks and materials according to manufacturer specifications and safety requirements |
| 3 | Use signage equipment | |
| | 3.1 | Prepare equipment according to task and safety requirements. |
| | 3.2 | Operate equipment according to task and safety requirements and manufacturer specifications |
| 4 | Clean work area and tools and equipment | |
| | 4.1 | Clear work area and dispose of, reuse or recycle materials according to supervisor instructions and environmental requirements |
| | 4.2 | Clean, check, maintain and store tools and equipment according to manufacturer specifications and safety requirements |
| | 4.3 | Identify malfunctions, faults, wear or damage to tools and equipment and report for repair or replacement. |

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- reading skills to interpret documentation, specifications, drawings and instructions
- oral communication skills to:
 - use industry terminology and clear language when communicating with others
 - use questioning to identify and confirm instructions and task requirements
- planning and organising skills to:
 - identify and prepare required tools and equipment according to task requirements
 - plan and complete tasks in appropriate sequence
- self-management skills to:
 - follow instructions



- maintain a safe and organised workspace
- technology skills to safely check and use tools and equipment.

Required knowledge:

- workplace safety requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation in relation to using signage tools and equipment, including the required personal protective equipment (PPE) and safety requirements for power supplies
- key requirements of the relevant Australian Standards and codes that apply to using signage tools and equipment
- environmental requirements relevant to preparing and using signage tools and equipment
- industry terminology used when preparing and using signage tools and equipment and materials
- characteristics, functions and limitations of signage tools and equipment for a range of signage tasks
- types of pre-occupational checks required prior to using signage tools and equipment
- safe handling and maintenance checks of signage tools and equipment, including reporting procedures.

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. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Specifications may include:

- Australian and international standards and codes relevant to the sign industry
- plans, diagrams or sketches of basic sign requirements
- handling procedures for materials and equipment
- manufacturer specifications and guidelines
- organisational work specifications and requirements
- quality assurance requirements in relation to sign production
- regulatory and legislative requirements related to using signage tools and equipment
- standard operating procedures
- other verbal or written instructions

Specific tasks may include:

- applying
- boring



- cutting
- fastening
- fixing
- planing
- setting out, marking out and levelling
- shaping.

Workplace safety requirements may include:

- requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation:
 - assessment of conditions and hazards
 - emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
 - hazard control
 - hazardous materials and substances
 - job safety analysis and safe work method statements
 - personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - equipment defect identification
 - lighting
 - surrounding structures
 - trip hazards
 - working in proximity to others.

Environmental requirements may include:

- clean up protection
- noise and dust
- vibration
- waste management.

Tools and equipment may include:

- compressors
- generators
- handheld or small single person operated equipment
- pneumatic driven equipment
- welders.

Personal protective equipment (PPE) may include:

- dust mask/respirator
- foot protection

- gloves
- goggles for eye protection
- head protection
- hearing protection
- overalls.

Hand tools may include:

- cutting, planing, boring, shaping, fixing, fastening and percussion tools
- drills
- glass scrapers
- hammers
- material shifting and holding tools
- screwdrivers
- spirit and laser levels.

Power and pneumatic tools may include:

- compressors
- generators
- glue guns
- heat guns
- pneumatic driven equipment, including their leads and hoses
- pop rivet guns
- portable, static and electrical tools
- routers
- welders.

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 Guidelines for this Training Package.

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

An individual demonstrating competency must be able to provide evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit with the application of underpinning knowledge.

There must be evidence that the individual has selected and used at least five different hand tools and at least two different power and/or pneumatic tools for the required signage tasks, including:

- complied with safety requirements
- selected and used the required protective personal equipment



- performed checks on tools and equipment, prior and after using
- reported on condition and faults of tools and equipment as required
- cleaned up and stored tools and equipment after use.

Context of and specific resources for assessment

Skills must have been demonstrated in a signage and graphics workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessment must ensure access to:

- relevant specifications and instructions
- range of signage tools and equipment
- support materials appropriate to the signage tasks
- workplace instructions relating to safe work practices and addressing hazards and emergencies.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following assessment methods are appropriate for this unit:

- written and oral questioning to test underpinning knowledge of the characteristics, functions and limitations of signage tools and equipment and safety requirements
- observation of practice skills in the safe use and maintenance of tools and equipment.



Unit code VU23072

Unit title Produce basic signs

Unit Descriptor This unit provides the knowledge and skills required to produce basic signs comprising text, shapes, graphics, numerals and light emitting diode (LED) systems of less than 240 volts on a range of substrates.

It includes the ability to prepare for basic sign production, set out and apply material to sign layout, clean up after use, and report on faulty tools and equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Employability Skills This unit contains Employability Skills.

Application of the Unit This unit applies to individuals who under close supervision and guidance, develop a defined and limited range of skills and knowledge in basic sign production in preparation for entering the signage and graphic industry. They may work individually or with others as a team and use a limited range of judgement and follow instructions specified by the supervisor.

ELEMENT

Elements describe the essential outcomes of a unit of competency.

PERFORMANCE CRITERIA

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 for basic sign production | 1.1 Identify and confirm basic sign production requirements and specifications with supervisor |
| | | 1.2 Identify workplace safety requirements relating to basic sign production |
| | | 1.3 Identify materials to be used and estimate quantities according to sign requirements and specifications |
| | | 1.4 Select and fit the required personal protective equipment (PPE) for the tasks |
| | | 1.5 Select and obtain the required materials, tools and equipment for the tasks |

- 1.6 Complete pre-operational checks on tools and equipment according to supervisor instructions and manufacturer specifications
- 2 Develop layout and design sign
 - 2.1 Produce layout roughs or sketches according to supervisor instructions and specifications
 - 2.2 Reproduce layout from layout roughs or sketch using computer software
 - 2.3 Review and confirm layout following feedback from supervisor
- 3 Prepare and apply sign elements to sign layout
 - 3.1 Set out sign layout to scale using measuring equipment and techniques applicable to design
 - 3.2 Identify and prepare sign elements according to required **material application**
 - 3.3 Determine colour selection according to design requirements
 - 3.4 Fabricate basic signage letter or shape according design requirements
 - 3.5 Attach sign elements to sign layout using the required techniques
 - 3.6 Fix LED system to sign as required according to supervisor instructions and manufacturer specifications
 - 3.7 Trim and finish sign according to sign production requirements
 - 3.8 Position and check sign for functionality and accuracy, and make adjustments or rectify problems as required
- 4 Complete post sign production activities
 - 4.1 Clean, check protection and prepare completed work for transportation
 - 4.2 Clear work area and dispose of, reuse or recycle materials according to supervisor instructions and environmental requirements
 - 4.3 Clean, check, maintain and store tools and equipment according to manufacturer specifications and safety requirements
 - 4.4 Identify malfunctions, faults, wear or damage to tools and equipment and report for repair or replacement.

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- reading skills to interpret documentation, specifications, drawings and instructions
- oral communication skills to:
 - use industry terminology and clear language when communicating with others
 - use questioning to identify and confirm instructions and task requirements
- numeracy skills to:
 - perform basic measurements
 - estimate material requirements
 - layout signs to scale
- problem solving skills to identify problems with signage work and take action to rectify minor faults and problems
- planning and organising skills to:
 - identify and prepare work area, required tools and equipment according to sign production requirements
 - plan and complete tasks in appropriate sequence
- self-management skills to:
 - follow instructions
 - maintain a safe and organised workspace
- teamwork skills to:
 - coordinate tasks and work cohesively with others
 - ensure a safe working environment for others
- technology skills to:
 - safely prepare and use signage tools and equipment
 - use computer software to layout and design sign
 - use low voltage LED systems in signage applications.

Required knowledge:

- workplace safety requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation in relation to basic sign production, including the required personal protective equipment (PPE) and working with power and low voltage electrical wires
- key requirements of relevant Australian Standards and codes that apply to basic sign production
- industry terminology used when producing basic signs, including dimensions, symbols, abbreviations and key features of signage
- characteristics, functions and limitations of signage tools and equipment, including computer software and materials used for preparing sign elements for basic signs
- characteristics, functions, components and limitations of LED technology for illuminating signs, including safe handling and procedures used to incorporate LED in signs

- drawings used for sign layout
- principles and application of design and layout theory relevant to sign production, including:
 - balance
 - colour and colour harmony
 - harmony
 - letter styles
 - spacing
 - contrast
- measurements and calculations used to design and layout basic signs
- techniques used to attach sign elements to sign layout
- techniques used to check finished signs for functionality and accuracy
- procedures used protect, store and transport signage work.

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. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Specifications may include:

- Australian and international standards and codes relevant to the sign industry
- plans, diagrams or sketches of basic sign requirements
- handling procedures for materials and equipment
- manufacturer specifications and guidelines
- organisational work specifications and requirements
- quality assurance requirements in relation to sign production
- regulatory and legislative requirements related to using signage tools and equipment including LED technology
- standard operating procedures
- other verbal or written instructions.

Workplace safety requirements may include:

- requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation:
 - assessment of conditions and hazards
 - emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
 - hazard control
 - hazardous materials and substances

- job safety analysis and safe work method statements
- personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - equipment defect identification
 - lighting
 - surrounding structures
 - trip hazards
 - working in proximity to others.

Materials may include

- acrylics
- application tape
- enamel paints (oil-based)
- glass
- LED system of less than 240 volts
- timber
- vinyl.

Personal protective equipment (PPE) may include:

- dust mask/respirator
- foot protection
- gloves
- goggles for eye protection
- head protection
- hearing protection
- overalls.

Tools and equipment may include:

- air release tool
- artists brush
- brushes
- circuit testing equipment
- sign software
- drawing instruments
- electrical connection tools
- heat gun/hair dryer
- measuring tape/rule
- plotter
- rollers

- stirring sticks
- straight edge
- tweezers
- work pots/containers.

Material application may include:

- brush
- roller
- spray
- stipple.

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 Guidelines for this Training Package.

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

An individual demonstrating competency must be able to provide evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit with the application of underpinning knowledge.

There must be evidence that the individual has produced at least two different basic signs, one of which must contain a light emitting diode (LED) system of less than 240 volts, including:

- identified dimensions, symbols, abbreviations and key features of signage
- complied with safety requirements throughout sign production
- identified and used the required processes, tools and equipment to carry out sign production
- produced layout accurately to design specifications using sign software and required techniques
- used colour according to design requirements
- applied required material to substrate, accurately calculated for minimal waste
- communicated with supervisor and checked sign to ensure alignment to signage requirements and specifications.

Context of and specific resources for assessment

Skills must have been demonstrated in a signage and graphics workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessment must ensure access to:

- reference documentation relating to producing signs
- specifications for signs in basic forms
- tools, equipment and materials appropriate to sign production, including:
 - LED system less than 240 volts
 - computer software
- workplace instructions relating to safe work practices and addressing hazards and emergencies.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following assessment methods are appropriate for this unit:

- written and oral questioning to test underpinning knowledge of the key features of signage
- observation of practice skills in producing basic signs.

Unit code VU23073

Unit title Produce basic computer aided manufactured vinyl signs

Unit Descriptor This unit provides the knowledge and skills required to prepare materials, design layout and equipment for producing basic computer aided manufactured vinyl signs.

It includes the ability to prepare for computer aided sign production, develop layout, start up, enter data and operate computer-aided machinery, cut graphics, print and laminate sign, identify and respond to common operating problems, clean up after use, and report on faulty tools and equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Employability Skills This unit contains Employability Skills.

Application of the Unit This unit applies to individuals who under close supervision and guidance, develop a defined and limited range of skills and knowledge in producing basic computer aided vinyl signs in preparation for entering the signage and graphic industry. They may work individually or with others as a team and use a limited range of judgement and follow instructions specified by the supervisor.

ELEMENT

Elements describe the essential outcomes of a unit of competency.

PERFORMANCE CRITERIA

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 for computer aided sign production | 1.1 Identify and confirm sign production requirements and <i>specifications</i> for computer aided sign production with supervisor |
| | | 1.2 Identify <i>workplace safety requirements</i> relating to the computer operation and sign production tasks |
| | | 1.3 Select, check and fit the required <i>personal protective equipment (PPE)</i> for the tasks |
| | | 1.4 Select and obtain the required <i>tools, equipment and materials</i> for the tasks |
| 2 | Develop layout and design sign | 2.1 Produce layout roughs or sketches according to supervisor instructions and specifications |

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VU23073 Produce basic computer aided manufactured signs

- 2.2 Reproduce layout from layout roughs or sketch using computer software
 - 2.3 Review and confirm layout following feedback from supervisor
- 3 Set up and operate computer
 - 3.1 Start up and set computer to required specification according to standard operating procedures
 - 3.2 Store data according to task requirements and specifications
 - 3.3 Perform scanning digitising and make colour adjustments according to specifications
 - 3.4 Make back up copy of data according to specifications
 - 3.5 Undertake file management according to supervisor instructions and specifications
- 4 Cut vinyl sign
 - 4.1 Set up cutter according to manufacturer and output specifications
 - 4.2 Check digital file for required output and make adjustments as required
 - 4.3 Check vector images to ensure correct output operations
 - 4.4 Use cutter to cut out or engrave graphic or signage profile
- 5 Print vinyl sign
 - 5.1 Set up printer according to manufacturer and output specifications
 - 5.2 Check digital file for required output and make adjustments as required
 - 5.3 Check and confirm image resolution according to output specifications
 - 5.4 Print and check test prints against output specifications and make modifications to files and output devices as required
 - 5.5 Print sign according to sign production and quantity requirements and output specifications
- 6 Laminate vinyl sign
 - 6.1 Set up laminator according to supervisor instructions and specifications
 - 6.2 Load laminate into laminator and adjust controls according to manufacturer specifications

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VU23073 Produce basic computer aided manufactured signs

	6.3	Laminate sign according to sign production and quantity requirements
7	Solve routine operating problems	7.1 Identify routine operating problems during the sign production and take appropriate corrective action according to workplace procedures
	7.2	Remedy operating problems according to manufacturer specifications
8	Complete post sign production activities	8.1 Clean, check protection and prepare completed work for transportation
	8.2	Clear work area and dispose of, reuse or recycle materials according to supervisor instructions and environmental requirements
	8.3	Clean, check, maintain and store tools and equipment according to manufacturer specifications and safety requirements
	8.4	Identify malfunctions, faults, wear or damage to tools and equipment and report for repair or replacement.

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- reading skills to interpret documentation, specifications, drawings and instructions
- oral communication skills to:
 - use industry terminology and clear language when communicating with others
 - use questioning to identify and confirm instructions and task requirements
- numeracy skills to:
 - perform basic measurements
 - layout signs to scale
 - set printing settings to specifications
- problem solving skills to identify basic problems and faults with software applications and take action to rectify faults and problems
- planning and organising skills to:
 - identify and prepare work area, required tools, equipment and materials according to sign production requirements
 - plan and complete tasks in appropriate sequence
- self-management skills to:
 - follow instructions
 - maintain a safe and organised workspace
- teamwork skills to:

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- coordinate tasks and work cohesively with others
- ensure a safe working environment for others
- technology skills to:
 - safely prepare and use signage tools and equipment
 - program and use software for sign production
 - set up and use vinyl cutters, printers and laminators.

Required knowledge:

- workplace safety requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation in relation to computer aided vinyl sign production, including the required personal protective equipment (PPE)
- key requirements of the relevant Australian Standards and codes that apply to computer aided vinyl sign production
- industry terminology used when producing vinyl signs including dimensions, symbols, abbreviations and key features of signage
- drawings used for sign layout
- principles and application of design and layout theory relevant to sign production, including:
 - balance
 - colour and colour harmony
 - harmony
 - letter styles
 - spacing
 - contrast
- types, characteristics, functions and limitations of computer-aided machinery, hardware and range of software applications including file management and storage
- types, characteristics, functions and limitations of vinyl cutters
- materials and their characteristics relevant to producing signs, including safe handling
- types, characteristics, functions and limitations of digital printing output devices
- principles of colour theory and application in printing vinyl signs
- types, characteristics, functions and limitations of laminators
- operating procedures used for computer-aided machinery and equipment to produce, cut, print and laminate vinyl signs
- routine operating problems during the sign production and corrective actions used to remedy these.

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. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Specifications may include:

- Australian and international standards and codes relevant to the sign industry
- plans, diagrams or sketches of computer aided manufactured sign requirements
- handling procedures for materials and equipment
- manufacturer specifications and guidelines
- organisational work specifications and requirements
- quality assurance requirements in relation to sign production
- regulatory and legislative requirements related to using signage tools and equipment
- standard operating procedures
- other verbal or written instructions.

Workplace safety requirements may include:

- requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation:
 - assessment of conditions and hazards
 - emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
 - hazard control
 - hazardous materials and substances
 - job safety analysis and safe work method statements
 - personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - equipment defect identification
 - lighting
 - surrounding structures
 - trip hazards
 - working in proximity to others.

Personal protective equipment (PPE) may include:

- dust mask/respirator
- foot protection

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VU23073 Produce basic computer aided manufactured signs

Tools and equipment may include:

- gloves
- goggles for eye protection
- head protection
- hearing protection
- overalls.
- air release tool
- applicator
- sign software
- heat gun/hair dryer
- laminating equipment
- plotter/cutter
- printing equipment
- stencil knife
- straight edge
- tape measure/rule
- tweezers.

Materials may include:

- acrylics
- application tape
- glass
- laminating film
- timber
- vinyl
- vinyl application fluid.

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 Guidelines for this Training Package.

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

An individual demonstrating competency must be able to provide evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit with the application of underpinning knowledge.

There must be evidence that the individual has produced at least two different basic computer aided manufactured vinyl signs according to specifications and requirements, including:

- complied with safety requirements throughout sign production
- identified and used the required processes, tools and equipment to carry out sign production
- applied the required techniques to set up material with machine for production application
- entered data to achieve the requirements of the job
- set up and operated vinyl cutter
- set up and operated printing and laminating to produce printed and laminated signs
- taken necessary action to rectify routine problems as they occurred.

Context of and specific resources for assessment

Skills must have been demonstrated in a signage and graphics workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessment must ensure access to:

- relevant specifications and instructions
- industry tools, plant and equipment including computer and software, vinyl cutter, printing and laminating equipment for sign production
- materials required for sign production
- workplace instructions relating to safe work practices and addressing hazards and emergencies.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following assessment methods are appropriate for this unit:

- written and oral questioning to test underpinning knowledge of computer-controlled machinery, hardware

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VU23073 Produce basic computer aided manufactured signs

and range of software applications use to produce vinyl signs

- observation of practice skills in operating a computer, printer and laminator to produce vinyl signs.

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VU23074 Operate a flatbed router to produce signage components

Unit code VU23074

Unit title Operate a flatbed router to produce signage components

Unit Descriptor This unit provides the knowledge and skills required to safely use a flatbed router to produce components for signage.

It includes the ability to prepare for sign production, set up the routing system and software to produce signage components, clean up after use, and report on faulty tools and equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Employability Skills This unit contains Employability Skills.

Pre-requisite Unit CPCCGOHS1001A Work safely in the construction industry
CPCCVHS2001 Apply WHS requirements, policies and procedures in the construction industry

Application of the Unit This unit applies to individuals who under close supervision and guidance, develop a defined and limited range of skills and knowledge in sign production using a flatbed router in in preparation for entering the signage and graphic industry. They may work individually or with others as a team and use a limited range of judgement and follow instructions specified by the supervisor.

ELEMENT

Elements describe the essential outcomes of a unit of competency.

PERFORMANCE CRITERIA

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 to use a flatbed router for sign production

- 1.1 Identify and confirm sign production requirements using a flatbed router and **specifications** with supervisor
- 1.2 Identify **workplace safety requirements** relating to sign production using a flatbed router
- 1.3 Identify and select **materials** according to sign production requirements
- 1.4 Identify required **tools and equipment** according to sign production requirements
- 1.5 Select and use the appropriate **personal protective equipment (PPE)** for the tasks to be undertaken

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VU23074 Operate a flatbed router to produce signage components

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| | 1.6 | Complete pre-operational checks on tools and equipment according to supervisor instructions and as required by manufacturer specifications | |
| 2 | Set up and operate router | 2.1 | Select type of routing system to be used according to supervisor instruction, sign requirements and materials to be routed |
| | | 2.2 | Identify and select cutters according to supervisor instructions and sign requirements |
| | | 2.3 | Check cutters for sharpness and condition |
| | | 2.4 | Select software according to sign requirements |
| | | 2.5 | Use software and equipment to route required materials according to supervisor instructions, manufacturer specifications and safety requirements |
| | | 2.6 | Identify and report problems with signage work and equipment operation to supervisor |
| 3 | Clean work area and tools and equipment | 3.1 | Clean, check for damage, lubricate and store cutters safely after use |
| | | 3.2 | Clear work area and dispose of, reuse or recycle materials according to supervisor instructions and environmental requirements |
| | | 3.3 | Clean, check, maintain and store tools and equipment according to manufacturer specifications and safety requirements |
| | | 3.4 | Identify malfunctions, faults, wear or damage to tools and equipment and report for repair or replacement. |

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- reading skills to interpret documentation, specifications, drawings and instructions
- oral communication skills to:
 - use industry terminology and clear language when communicating with others
 - use questioning to identify and confirm instructions and task requirements
- problem solving skills to identify problems with signage work and equipment and take action to rectify minor faults and problems
- planning and organising skills to:
 - identify and prepare flatbed router and its associated tools and equipment according to task requirements

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VU23074 Operate a flatbed router to produce signage components

- plan and complete tasks in appropriate sequence
- self-management skills to:
 - follow instructions
 - maintain a safe and organised workspace
- teamwork skills to:
 - coordinate tasks and work cohesively with others
 - ensure a safe working environment for others
- technology skills to safely set up, operate a flatbed router and its associated tools and equipment.

Required knowledge:

- workplace safety requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation in relation to operating a flatbed router, including the required personal protective equipment (PPE) and safety requirements for power supplies
- key requirements of the relevant Australian Standards and codes that apply to sign production using a flatbed router
- industry terminology used when producing signs using a flatbed router
- characteristics, functions and limitations of flatbed routers, including:
 - cutter types
 - router set up and pre-occupational checks
 - routing depths
 - routing materials and their uses
 - routing software and applicable components.
- safe handling and maintenance checks of flatbed router and signage tools and equipment, including reporting procedures.

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. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Specifications may include:

- Australian and international standards and codes relevant to the sign industry
- plans, diagrams or sketches of computer aided manufactured sign requirements
- handling procedures for materials and equipment
- manufacturer specifications and guidelines
- organisational work specifications and requirements
- quality assurance requirements in relation to sign production

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VU23074 Operate a flatbed router to produce signage components

- regulatory and legislative requirements related to using signage tools and equipment
- standard operating procedures
- other verbal or written instructions

Workplace safety requirements may include:

- requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation:
 - assessment of conditions and hazards
 - emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
 - hazard control
 - hazardous materials and substances
 - job safety analysis and safe work method statements
 - personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - equipment defect identification
 - lighting
 - surrounding structures
 - trip hazards
 - working in proximity to others.

Materials may include:

- formex material
- high density polyurethane
- other plastic sheets
- polystyrene
- timber.

Tools and equipment may include:

- cutters
- panel saws
- routing software and applicable components.
- spanners
- vacuum cleaners
- Vernier callipers.

Personal protective equipment (PPE) may include:

- dust mask/respirator
- foot protection
- gloves
- goggles for eye protection

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VU23074 Operate a flatbed router to produce signage components

- head protection
- hearing protection
- overalls.

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 Guidelines for this Training Package.

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

An individual demonstrating competency must be able to provide evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit with the application of underpinning knowledge.

There must be evidence that the individual has created at least two different signage components using a flatbed router, including:

- complied with safety and quality requirements
- selected and used the required protective personal equipment
- set up and safely operated a router
- selected the required cutters for the application and materials
- applied knowledge of the characteristics and uses of routing materials and equipment in creating the sign
- maintained the router and cutters after use
- cleaned up and stored tools and equipment after use.

Context of and specific resources for assessment

Skills must have been demonstrated in a signage and graphics workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessment must ensure access to:

- relevant specifications and work instructions
- flatbed router, including tools and equipment and relevant software appropriate to flatbed router systems
- support materials appropriate to sign production tasks
- workplace instructions relating to safe work practices and addressing hazards and emergencies.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following assessment methods are appropriate for this unit:

- written and oral questioning to test underpinning knowledge of flatbed routing systems
- observation of practice skills in the safe use and operation of flatbed router to produce signs.

OFFICIAL

VU23075 Operate a CNC machine to produce signage components

Unit code VU23075

Unit title Operate a CNC machine to produce signage components

Unit Descriptor This unit provides the knowledge and skills required to safely use a computer numerically controlled (CNC) machine to produce components for signage.

It includes the ability to prepare for sign production, enter data and test program prior to producing signage components, clean up after use, and report on faulty tools and equipment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Employability Skills This unit contains Employability Skills.

Pre-requisite Unit CPCCOHS1001A Work safely in the construction industry
CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry

Application of the Unit This unit applies to individuals who under close supervision and guidance, develop a defined and limited range of skills and knowledge in sign production using a CNC machine in preparation for entering the signage and graphic industry. They may work individually or with others as a team and use a limited range of judgement and follow instructions specified by the supervisor.

ELEMENT

Elements describe the essential outcomes of a unit of competency.

PERFORMANCE CRITERIA

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 to use a CNC machine for sign production

- 1.1 Identify and confirm sign production requirements using a CNC machine and **specifications** with supervisor
- 1.2 Identify **workplace safety requirements** relating to sign production using a CNC machine
- 1.3 Identify and select **materials** according to sign production requirements
- 1.4 Identify required **tools and equipment** according to sign production requirements
- 1.5 Select and use the appropriate **personal protective equipment (PPE)** for the tasks to be undertaken

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VU23075 Operate a CNC machine to produce signage components

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| | 1.6 | Complete pre-operational checks on tools and equipment according to supervisor instructions and manufacturer specifications |
| 2 | Enter data and transfer to machine control | 2.1 Identify and check programming terms and methods against sign production requirements and specifications |
| | 2.2 | Enter program to produce the required cutting movements according to machine specifications |
| | 2.3 | Transfer program into machine memory using required method |
| | 2.4 | Test program through practice run and make adjustments to program through machine control or report problems to supervisor as required |
| 3 | Produce signage components | 3.1 Produce components using automatic mode |
| | 3.2 | Label the components to be ready for assembly according to signage specifications |
| 4 | Clean work area and tools and equipment | 4.1 Clean and check CNC machine according to manufacturer specification |
| | 4.2 | Clear work area and dispose of, reuse or recycle materials according to supervisor instructions and environmental requirements |
| | 4.3 | Clean, check, maintain and store tools and equipment according to manufacturer specifications and safety requirements |
| | 4.4 | Identify malfunctions, faults, wear or damage to tools, equipment and machinery and report for repair or replacement. |

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- reading skills to interpret documentation, specifications, drawings and instructions
- oral communication skills to:
 - use industry terminology and clear language when communicating with others
 - use questioning to identify and confirm instructions and task requirements
- writing skills to:
 - enter CNC programming details
 - mark components ready for assembly

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VU23075 Operate a CNC machine to produce signage components

- problem solving skills to identify problems with signage work and equipment and take action to rectify minor faults and problems
- planning and organising skills to:
 - identify and prepare a CNC machine according to task requirements
 - plan and complete tasks in appropriate sequence
- self-management skills to:
 - follow instructions
 - maintain a safe and organised workspace
- teamwork skills to:
 - coordinate tasks and work cohesively with others
 - ensure a safe working environment for others
- technology skills to safely set, program and operate a CNC machine.

Required knowledge:

- workplace safety requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation in relation to operating a CNC machine, including the required personal protective equipment (PPE) and safety requirements for power supplies
- key requirements of the relevant Australian Standards and codes that apply to sign production using a CNC machine
- industry terminology used when producing signage components using a CNC machine
- characteristics, functions and limitations of CNC machine, including:
 - machining tools, equipment and components
 - types of CNC machining support software
 - suitable materials for the CNC machinery process.
- safe handling and maintenance checks of a CNC machine and signage tools and equipment, including reporting procedures.

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. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Specifications may include:

- Australian and international standards and codes relevant to the sign industry
- plans, diagrams or sketches of computer aided manufactured sign requirements
- handling procedures for materials and equipment
- manufacturer specifications and guidelines
- organisational work specifications and requirements

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VU23075 Operate a CNC machine to produce signage components

- quality assurance requirements in relation to sign production
- regulatory and legislative requirements related to using signage tools and equipment
- standard operating procedures
- other verbal or written instructions.

Workplace safety requirements may include:

- requirements under occupational health and safety (OHS)/work health and safety (WHS) legislation:
 - assessment of conditions and hazards
 - emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
 - hazard control
 - hazardous materials and substances
 - job safety analysis and safe work method statements
 - personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - equipment defect identification
 - lighting
 - surrounding structures
 - trip hazards
 - working in proximity to others.

Materials may include:

- formex material
- high density polyurethane
- metal
- other plastic sheets
- polystyrene
- timber.

Tools and equipment may include:

- cutters
- mills
- support software.

Personal protective equipment (PPE) may include:

- dust mask/respirator
- foot protection
- gloves
- goggles for eye protection
- head protection
- hearing protection
- overalls.

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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 Guidelines for this Training Package.

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

An individual demonstrating competency must be able to provide evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit with the application of underpinning knowledge.

There must be evidence that the individual has produced least two different signage components using a CNC machine, including:

- complied with safety and quality requirements
- selected and used the required protective personal equipment
- entered and transferred the required data to machine control using the required programming terms and methods
- tested the program and made necessary adjustments as required
- operated the CNC in automatic mode
- cleaned up and stored tools, equipment and machinery after use.

Context of and specific resources for assessment

Skills must have been demonstrated in a signage and graphics workplace or in a simulated environment that reflects workplace conditions. Where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources.

Assessment must ensure access to:

- relevant specifications and work instructions
- CNC machine, including tools and equipment and relevant software
- support materials appropriate to sign production tasks
- workplace instructions relating to safe work practices and addressing hazards and emergencies.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following assessment methods are appropriate for this unit:

- written and oral questioning to test underpinning knowledge of CNC machinery
- observation of practice skills in the safe use and operation of CNC machine to produce signage components.