



# School-developed Learning and Assessment Plan form

## Stage 2 Digital Communication Solutions (CAD)

School \_\_\_\_\_ Teacher(s) \_\_\_\_\_

Other schools using this plan \_\_\_\_\_

SACE school code		

Year

Enrolment code				
Stage	Subject code			No. of credits (10 or 20)
<b>2</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>20</b>

Program variant code (A-W)

School use only

Approved  Not approved

Signature of Principal/delegate \_\_\_\_\_ Date \_\_\_\_\_

### Addendum

Please **only** use this section for any changes made after the learning and assessment plan has been approved.

#### Changes made to the learning and assessment plan

Describe any changes made to the pre-approved learning and assessment plan to support students to be successful in meeting the requirements of the subject. In your description, please explain:

- what changes have been made to the plan
- the rationale for making the changes
- whether these changes have been made for all students, or for individuals within the student group.

#### Endorsement of changes

The changes made to the learning and assessment plan support student achievement of the performance standards and retain alignment with the subject outline.

Signature of principal or delegate \_\_\_\_\_ Date \_\_\_\_\_

# Assessment overview

## Stage 2 Digital Communication Solutions – 20 credits

Complete the table below to show details of the planned tasks. Use numbers to show where students will have the opportunity to provide evidence for each of the specific features for all assessment design criteria.

### Assessment Type 1: Specialised Skills Task – weighting 20%

Assessment details	Assessment design criteria				Assessment conditions (e.g. task type, word length, time allocated, supervision)
	I	D	P	E	
<p>Specialised Skills Task 1: modelling and rendering</p> <p>Students will be given an item and a measuring device. They will produce individual parts, a final assembly and renderings of the item for assessment.</p> <p>Assessment is based on</p> <ul style="list-style-type: none"> <li>the completeness and accuracy of the CAD model/s</li> <li>the quality of the finished renders</li> <li>a written/multimodal reflection of the processes used, problems encountered and solutions to these problems.</li> </ul> <p>The outcome of this skills task is usable for Specialised Skills Application 2</p>			1,2	1	The combined evidence should be a maximum of 500 words if written, or the equivalent in multimodal form.
<p>Specialised Skills Task 2: technical drawings</p> <p>Students are required to produce a range of technical drawings (to AS1100 standard) of their CAD model which was produced in Specialised Skills Application 1. These technical drawings are to be produced using Inventor CAD software, and are to include an exploded General Assembly Drawing with Parts List, plus individual dimensioned part drawings for selected components.</p> <p>Students are assessed on</p> <ul style="list-style-type: none"> <li>layout</li> <li>dimensioning and detailing reference to the appropriate AS1100 drawing standards</li> <li>a written/multimodal reflection of the processes used, problems encountered and solutions to these problems.</li> </ul>			1,2	1	The combined evidence should be a maximum of 500 words if written, or the equivalent in multimodal form.

### Assessment Type 2: Design Process and Product – weighting 50%

Assessment details	Assessment design criteria				Assessment conditions (e.g. task type, word length, time allocated, supervision)
	I	D	P	E	
<p>Folio</p> <p>Students create a design folio, documenting their design from conception to realisation. The folio must include</p> <ul style="list-style-type: none"> <li>Investigation and Analysis <ul style="list-style-type: none"> <li>A design brief that outlines functional outcomes, aesthetic considerations, constraints and a statement of intent, and identification of criteria to evaluate the success of the solution</li> <li>Investigation and critical analysis of existing products, materials and processes</li> </ul> </li> <li>Design Development and Planning <ul style="list-style-type: none"> <li>Sketches and technical drawings communicating design intent</li> <li>A timeline outlining the sequence of the realisation process</li> </ul> </li> </ul>	1	1		1	The evidence should be a maximum of 1500 words if written, or 9 minutes recorded oral documentation, or the equivalent in multimodal form.

Assessment details	Assessment design criteria				Assessment conditions (e.g. task type, word length, time allocated, supervision)
	I	D	P	E	
<ul style="list-style-type: none"> <li>Evaluation <ul style="list-style-type: none"> <li>A critical comparison of the realised product with the criteria specified in the design brief, and an explanation and justification for any changes made</li> <li>Reflection on outcomes with recommendations for possible improvement or redevelopment of designs or procedures</li> <li>Evaluative observations about the student's own skill development</li> </ul> </li> </ul>					
<p>Solution</p> <p>Students produce the solution as designed in their folio. They produce a video or photographic record that includes evidence of:</p> <ul style="list-style-type: none"> <li>Development of skills</li> <li>Selection and use of appropriate processes and techniques</li> <li>Modification to the design as a result of technical problems that arise</li> <li>Ongoing reflection on ideas and procedures</li> </ul> <p>The realised solution must be showcased in the video/photographic record</p>		2	1,2		The evidence for the solution realisation task should be a maximum of 500 words if written or 3 minutes of recorded oral communication, or the equivalent in multimodal form.

### Assessment Type 3: Resource Study – weighting 30%

Assessment details	Assessment design criteria				Assessment conditions (e.g. task type, word length, time allocated, supervision)
	I	D	P	E	
<p>Part One: Resource Investigation</p> <p>Students investigate and analyse the functional characteristics and properties of two or more materials or components they are considering for use in the creation of their solution. They report on how their research into and testing of the functional characteristics and properties of these materials or components will affect their selection for use in the realisation of their solution.</p> <p>e.g Properties and testing of Stainless steel and Aluminium</p> <p>Students investigate the properties of the stainless steel and aluminium and design three tests relevant to their solution to determine which material is most appropriate, for example a corrosion test. They analyse qualitative and quantitative data to make a recommendation in light of secondary (research) data collected prior to testing.</p>	1	2			The combined evidence should be a maximum of 2000 words if written, or a maximum of 12 minutes recorded oral documentation, analysis, and evaluation, or the equivalent in multimodal form.
<p>Part Two: Issue Exploration</p> <p>Students investigate and analyse ethical, legal, economic and/or sustainability issues specific to their solution.</p> <p>Students may investigate and analyse one or more of the following strategies or approaches;</p> <ul style="list-style-type: none"> <li>Sustainability: life cycle analysis, carbon footprint, potential to reuse or recycle</li> <li>Ethical: use and application of the end product, concerns related to health and safety, discrimination, conflicts of interest, cultural influences</li> <li>Legal responsibilities: patents, safety requirements, intellectual property, creative commons, WHS legislation</li> <li>Economic considerations: costing, responsible use of resources, time management</li> </ul>	2			1	