Training and assessment strategy

MSM20216 Certificate II in Manufacturing Technology

Senior School (Year 10)

Caloundra SHS

TAS version: **19/11/2020**

Delivery period: 2020 – 2020

Approval **School RTO training and assessment strategy**			
School RTO name	Caloundra SHS	**QCAA number**	198
Qualification code	MSM20216	**National provider number**	30058
RTO manager		**Chief executive (principal)**	
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Date	17/10/2020	**Date**	17/10/2020

Contents

About this template

Every qualification on an RTO's scope of registration must have documented training and assessment strategies and practices. As these must be current, the TAS must be a dynamic document, which is updated whenever strategies and practices change. Further, the TAS must be of an auditable standard, meaning that it contains verifiable information and meets the requirement of the *Standards for Registered Training Organisations (RTOs) 2015.* The TAS may be made available to students prior to enrolment, to enable students to make informed decisions about undertaking the training with the RTO.

Who should use it

This document has been provided by the Queensland Curriculum and Assessment Authority (QCAA) for use in Queensland school RTOs.

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Queensland school RTOs may use this document to assist with their quality assurance processes and systematic monitoring of RTO operations as outlined within the regulatory *Standards for Registered Training Organisations (RTOs) 2015*. These standards form part of the VET Quality Framework.

How to use it

Read through and customise the information in this TAS to represent the RTO's current policies and practices. The format is recommended, but not mandatory. Sections 1 to 4 may be provided direct to students to meet disclosure requirements. To complete the TAS, the following people will need to be involved: RTO Manager/s (RTOM), Principal, trainers/assessors and industry representatives.

Text in grey in the tables may be overwritten. Text in black is intended to remain but may be customised. Guidance and instructions are set in italics: these range from instructions to copy or match information in other sections, or to adjust the provided text as appropriate to the RTOs situation, to samples and notes.

- **Relevant standards:** Standard 1 relates to the training and assessment strategy and practices, but due to the overlapping nature of the standards, the TAS also contributes evidence for a number of other Standards. Each section of the TAS indicates which standards and clause/s apply. You can access the Standards at: www.comlaw.gov.au/Details/F2014L01377.
- **Industry relevance:** In Section 7, RTOs show that the TAS was developed through engagement with industry. Auditable-quality information on engagement, recommendations and resulting actions can be recorded here.
- **Assessment tools:** Register all assessment tools used to determine competency outcomes for this qualification in Section 8. Having a register of all assessment tools makes it easier to identify and select the assessment tools to validate, and contributes to systematic monitoring.
- **Systematic validation:** All RTOs must have a five-year validation plan that covers all qualifications on scope. Section 9 explains how to conduct the validation and record the outcomes and resulting actions. It has provision to record validation of up to 16 assessment tools with auditable-quality information to meet the requirements of Standards 1.9–1.11.
- **Systematic monitoring:** Sections 10 and 11 are checklists to provide evidence of systematic monitoring. Evidence that RTO management has a system for monitoring training, assessment and practices is an auditable requirement of the Standards. Checkboxes throughout the TAS allow for more specific monitoring evidence of practices.

Section 2 Core and elective components

List the units that are going to be delivered and assessed as part of this strategy. Engage with industry to confirm the relevance of elective units selected, and record this in Section 7.

Relevant standards: 1.1, 1.2, 1.4, 1.7, 1.8(a), 1.12, 3.5, Schedule 5

Note: *A prerequisite unit may be delivered through an integrated approach with the secondary unit; it does not have to be fully completed before starting the secondary unit. However, to satisfy formal requirements, the prerequisite unit must be signed off prior to the secondary unit*

Core and elective units being offered		Unit type	Pre-requisite unit required?
MSMWHS200	Work safely	Core Unit	☐
MSMENV272	Participate in environmentally sustainable work practices	Core Unit	☐
VU22330	Select and interpret drawings and prepare three dimensional (3D) sketches and drawings	Group C	☐
VU22340	Use 3D printing to create products	Group C	☐
MSMPCII295	Operate manufacturing equipment	Group B	☐
MSMPCII299	Make an object from plastic	Group B	☐
MSS402051	Apply quality standards	Core Unit	☐
MSS402001	Apply competitive systems and practices	Core Unit	☐
MSS402080	Undertake root cause analysis	Core Unit	☐
MSS402010	Manage the impact of change on own work	Group A	☐
		Choose an item.	☐
		Choose an item.	☐
		Choose an item.	☐

Optional units and flexibility	*If there are options regarding choice of electives explain these here. Include comments on flexibility and fairness considerations for the cohort and/or individuals. For example, if there are more units listed here than required by the packaging rules, explain here the options available to students and any RPL or credit transfer options.*

Assessment project / activity / task *(All codes and names must match Section 8)*					
Project 1	***MTech Safety Drone SOP -*** *Project document is found at: G:*				
Estimated duration	5 weeks (term 1)	**Unit/s for which partial or complete evidence will be gathered** (Record unit code and title only here)	**Evidence-gathering techniques used** (More than one technique must be ticked for each unit or cluster of units.)		**Evidence-gathering tool code**
Description *(summary)*	***Drone Safe Operating Procedure (SOP)*** *Students review safe working practices, hazard identification, risk analysis and risk management.* *Students then apply what they have learned and create a SOP poster for flying recreational drones generally and one for flying mini-drones indoors (classroom focus).*	*Evidence is gathered for parts of this cluster of units, see mapping tool for full details:* • *MSMWHS200 -* Work safely	**Observation checklist**	☐	
			Questions checklist	☑	*Mtech Safety theory 1.1* *Mtech Safety theory 1.2*
			Review of product /service against specifications	☑	*Mtech Safety Product review recreational Drone SOP 1.1* *Mtech Safety Product review indoor mini-Drone SOP 1.2*
			Review folio of work against specifications	☐	
			Third party report	☐	
			Safety induction checklist	☐	

Project 2	**Mtech Environmental Management Audit.** *Project document is found at: G:*				
Estimated duration	5 weeks (term 1)	**Unit/s for which evidence will be gathered**	**Evidence-gathering techniques used** (More than one technique must be ticked for each unit or cluster of units)		**Evidence-gathering tool code**
Description *(summary)*	Environmental Management Audit Students conduct an Environmental management audit and a resource management audit of your workplace as part of Standard operating procedures. Identify and assess three environmental hazards using the auditing tool below. This environmental hazard auditing tool will help identify hazards and put in place controls to eliminate harm to the environment.	Enter the unit codes and titles. *Hyperlink to unit on TGA is recommended (copy from Section 2)* *MSMENV272* Participate in environmentally sustainable work practices	**Observation checklist**	☐	
			Questions checklist	x	Mtech EnvSus Theory 2.1 Mtech EnvSus Theory 2.2
			Review of product /service against specifications	x	Mtech EnvSus product review Audit 2.1
			Review folio of work against specifications	☐	
			Third party report	☐	
			Safety induction checklist	☐	

Project 3	**mTech 3D Model drone component**				
Estimated duration	10 weeks (term 2)	**Unit/s for which evidence will be gathered**	**Evidence-gathering techniques used** (More than one technique must be ticked for each unit or cluster of units)		**Evidence-gathering tool code**
Description *(summary)*	Students Select and interpret drawings and prepare three dimensional (3D) sketches and drawings and design, interperet and prepare a 3d model of a matching drone chassis using Auto Desk Inventor. Students then create a folio of technical drawings based on their model.	• *VU22330* Select and interpret drawings and prepare three dimensional (3D) sketches and drawings • *VU22340* Use 3D printing to create products	**Observation checklist**	☐	
			Questions checklist	X	Mtech theory tech drawing 3.1 Mtech Theory computing tech 3.2
			Review of product /service against specifications	X	Mtech product 3d model 3.1
			Review folio of work against specifications	X	Mtech Folio Tech Drawings 3.1
			Third party report	☐	
			Safety induction checklist	☐	

Project 4	**Drone component production**				
Estimated duration	10 weeks (terms 3 / 4)	**Unit/s for which evidence will be gathered**	**Evidence-gathering techniques used** (More than one technique must be ticked for each unit or cluster of units)		**Evidence-gathering tool code**
Description *(summary)*	Operate 2 or more of the following and analyse faults during construction to produce 2 components of a drone; 3d printer laser cutter CNC mill Vacuum moulder	• *MSMPCII295* Operate manufacturing equipment • *MSMPCII299* Make an object from plastic • *MSS402080* Undertake root cause analysis *(RCA)* • *MSS402051* Apply quality standards • *MSMWHS200* - Work safely	**Observation checklist**	x	Mtech production safety obs 4.1 Mtech production RCA obs 4.2
			Questions checklist	x	Mtech Theory equipment 4.1 Mtech Theory production 4.2 Mtech Theory RCA 4.3 Mtech Theory Quality 4.4
			Review of product /service against specifications	x	Mtech product review drone component_1 quality 4.1 Mtech product review drone component_2 quality 4.2
			Review folio of work against specifications	☐	
			Third party report	☐	
			Safety induction checklist	☐	

Project 5	**Value Chain analysis**				
Estimated duration	2 weeks (term 4)	**Unit/s for which evidence will be gathered**	**Evidence-gathering techniques used** (More than one technique must be ticked for each unit or cluster of units)		**Evidence-gathering tool code**
Description *(summary)*	In a team, students are to complete the analysis template using brainstorming and referring to the provided 'Value Chain' diagram. Students are to provide a response for each section of the Value Chain Primary Activities according to their role in the manufacturing process.	*MSS402001* Apply competitive systems and practices *MSS402010* Manage the impact of change on own work	**Observation checklist**	x	Mtech manage change obs 5.1 Mtech competitive systems obs 5.2
			Questions checklist	x	Mtech competitive systems and change Theory 5.1 Mtech managing change theory 5.2
			Review of product /service against specifications	☐	
			Review folio of work against specifications	☐	
			Third party report	☐	
			Safety induction checklist	☐	