

***MCAST***

***Manual of Standards***

*for the writing of an*

***Accredited Unit Specification***

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## Preamble

This '*MCAST Manual of Standards for the Writing of an Accredited Unit Specification*' is intended to provide the unit writers with the expected, minimum quality standard in the writing of the MCAST accredited vocational, key skills and transversal unit specifications.

This Manual provides a step-by-step guide on how to correctly fill in the Accredited Unit Specification Template and is to be used in conjunction with Doc 338 'Accredited Unit Specification Template' available via the MCAST intranet link.

[https://intranet.mcast.edu.mt/?page\\_id=323](https://intranet.mcast.edu.mt/?page_id=323).

By following this Manual, we will register an improvement in the quality of the first draft of the unit specification being submitted for review to Curriculum. This will hence reduce the cycle time of the design, development and approval process of new/major changes in unit specifications and contribute to the better overall quality of teaching, learning and assessment.

The unit writer is to consult with the Institute Management and then forward the draft to the Curriculum Office for vetting and feedback. Once the unit specification is approved by the Curriculum Office, the new/updated unit specification will be assigned an (updated) unit code and then uploaded on the College repository.

You are welcome to suggest any improvements to this Manual to the Curriculum Office staff.

Plans are already in hand to issue an updated Manual that sets out the minimum standards for the units intended for online/blended learning.

Should you require any clarifications on the interpretation of the requirements of this Manual, please do not hesitate to contact the staff at the Curriculum Office.

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Thank you for your co-operation.



Ing Pierre Dalmas

Director Quality Assurance

July 2020

## Contents:

1. *Structure of a Typical Set-Up of a Unit of Learning Outcomes*
2. *Step by Step Instructions to complete a Unit of Learning Outcomes*
3. *Information Material: With Examples*

# 1. Structure of a Typical Set-Up of a Unit of Learning Outcomes

Each Unit within the programmes covered by these specifications is set out as follows:

- **Unit Title, Unit Type, Learning Hours, Level and Credit Value** - The learning hours include both guided and non-guided learning hours. The guided learning hours include also hands-on in laboratory and workshop. The level assigned is in relation to the Malta Qualifications Framework.
- **Unit Description** - This provides the reader an appreciation of the unit as well as highlighting the focus of the unit.
- **Learning Outcomes** - Learning outcomes state exactly what the learner should know, understand or be able to do as a result of completing the unit.
- **Unit Content** - The unit content provides the knowledge, skills and competences that will be covered to achieve the learning outcomes of that particular unit.
- **Learning Outcomes and Assessment criteria** - Each unit contains statements of the evidence that each learner should produce in order to receive the appropriate grade. The assessment criteria represent the standard upon which learning is evaluated and graded.
- **Guidance for teaching and assessment** - This section provides additional information related to the unit to support lecturers and assessors. Most importantly delivery, suggested skill activities and resources. This part also sets out possible links between units within the programme, thus providing opportunities for the integration of learning, delivery and assessment.

## ACCREDITED UNIT SPECIFICATION TEMPLATE

**Notes:**

1. This Form is to be used for the approval by the Curriculum Office of a new Accredited Unit Specification.
2. Please Refer to the 'MCAST Manual of Standards for Writing of Accredited Units' (Doc 339) when filling-in this template. The document is available via the MCAST intranet [https://intranet.mcast.edu.mt/?page\\_id=320](https://intranet.mcast.edu.mt/?page_id=320)
3. Please ensure that all sections in this template are filled-in correctly.
4. Always use the updated version of the template of this Form that is available via MCAST intranet [https://intranet.mcast.edu.mt/?page\\_id=323](https://intranet.mcast.edu.mt/?page_id=323)
5. The final draft of the Accredited Unit Specification is to be first approved by the Institute Director and then forwarded to the Curriculum Office via email for vetting and feedback.

### General Information

Name of person proposing unit / changes to unit	
Name of Institute / Centre	
Programme Title (of unit being proposed)	
Programme code (of unit being proposed)	

### Unit Type (Indicate by 'X')

Theory	<input type="checkbox"/>	Practical	<input type="checkbox"/>
Theory & Practical	<input type="checkbox"/>	Work Based Learning	<input type="checkbox"/>
Placement	<input type="checkbox"/>	Internship	<input type="checkbox"/>
Other			

### Delivery Mode(Indicate by 'X')

Traditional (face to face 100%)	<input type="checkbox"/>	Blended (Traditional / Online)	<input type="checkbox"/>
Other			

Guided Learning Hours (Contact) (hrs):	
EQF/MQF Level (1 - 7):	
Credits (ECVET / ECTS):	

Generic Unit description	

Overall Learning Outcomes (Minimum four, maximum six)	
L01	
L02.	
L03	
L04.	
L05.	
L06.	

COMPETENCE, KNOWLEDGE AND SKILLS
Competences At the end of the unit the learner will have acquired the responsibility and autonomy to:
1.
2.
3.
4.
5.
6.
7.
8.

**Knowledge At the end of the unit the learner will:**

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

**Skills At the end of the unit the learner will have mastered the following skills:**

**Applied  
Knowledge  
and  
Understanding**

1.

2.

3.

4.

5.

6.

7.

8.

9.

Communication Skills	1.
	2.
	3.
	4.
	5.
Judgmental Skills	1.
	2.
	3.
	4.
	5.
	6.
Learning Skills	1.
	2.

Unit Content	
LO1.	
LO2.	
LO3	
LO4.	



## Guidance for Teaching and Learning Process

### Delivery

### Assessment

### Total Learning Hours

#### Note:

1 credit (ECTS / ECVET) = 25 hours of total learning

**Contact hours:** Face to face, practical sessions, mentoring etc

**Non-contact hours:** Self-study such as reading, research, seminars, conferences, tutorials, assignments and assessments and related organised activities such as informal and non-formal learning)

Source NCFHE Referencing Report (2016)

<https://ncfhe.gov.mt/en/Documents/Referencing%20Report/Referencing%20Report%202016.pdf>

Category	No. Hrs	Suggested Activities
Contact Hours		
Supervised Placement / Practice Hours		

Self-Study Hours		
Assessments Hours		
Total Learning Hours of this Unit (Sum of all above hours)		Note : For example, in the case of a 6 ECTS/ECVET Unit, the total learning hours is to be 150hrs, that is, 25 hrs x 6 ECTS/ECVET)

## Assessment Criteria

To achieve each outcome a learner must satisfy the following assessment criteria:

K&U - Knowledge and Understanding

A&A - Analysis and Application

S&E - Synthesis/ Evaluation/ Create

Learning Outcome	Assessment Criteria	(MARKS)	K&U	A&A	S&E
LO1.	1.1				
	1.2				
	1.3				
	1.4				
LO2.	2.1				
	2.2				
	2.3				
	2.4				
LO3.	3.1				
	3.2				
	3.3				
	3.4				
LO4.	4.1				
	4.2				
	4.3				
	4.4				

<b>Resources Required</b>

<b>Indicative Reading List</b>

<b>List of Supporting Textbooks</b>

<b>List of Supporting Websites / Journals</b>

### 3. Information Material: With Examples

#### 1. Level:

The Level of a Qualification in Malta is set using the Level Descriptors. The Level descriptors express the level of knowledge, skills and competences acquired by an individual based on the level descriptors of the National Qualifications Framework.

Malta established its Malta Qualifications Framework (MQF) in 2007. The Malta Qualifications Framework is a referencing tool that helps to describe and compare both national and foreign qualifications to promote quality, transparency and mobility of qualifications in all types of education.

It is mainly referenced to the European Qualifications Framework (EQF) as well as to other non-European qualifications frameworks. The National Commission for Further and Higher Education (NCFHE) is the local competent authority to recognise qualifications and accredit courses against the Malta Qualifications Framework.

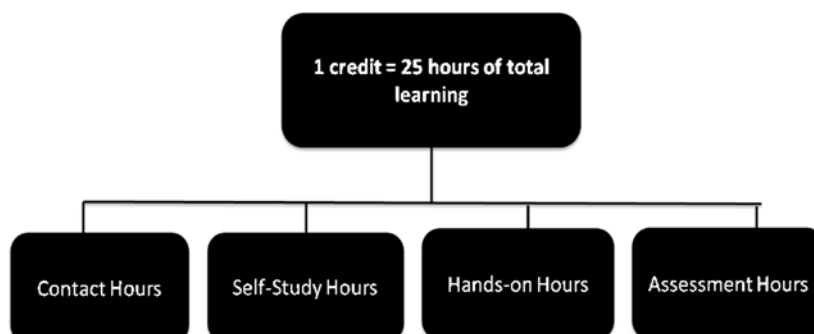
Link to the Maltese Level Descriptors -

<https://ncfhe.gov.mt/en/Documents/Referencing%20Report/Level%20Descriptors.pdf>

#### 2. Credits:

As the national authority, following consultation, NCFHE adopts a credit system of **1 ECVET point = 25 hours of total learning** to be used for the VET sector in Malta.

This runs in parallel to the system used in ECTS and Higher Education Qualifications and therefore instils a further degree of comparability and possible permeability. However, the number of hours allocated to self-study, contact hours, hands-on practice and assessment is to be flexible due to the vast different areas and fields of study covered by VET which imply different exigencies according to the context and subject area.



MCAST has also developed a ratio with regards to the Guided Learning Hours as a percentage of the Total Learning hours. The ratio of private study to contact hours varies but the following table can be used as a guideline. However, these are calculated accordingly based on the level assigned to the unit. At lower levels the learner is not to be expected to do a substantial amount of self-study as shown below.

Level	Credit system	Guided learning Hours as a % of Total Learning Hours
Level 1 - 4	ECVET	40 % - 60 %
Level 5 - 6	ECTS	25 % to 40 %

### 3. Learning Outcomes:

Learning Outcomes are statements which describe what a qualification represents in terms of knowledge, skills and competences. The Malta Qualifications Framework (MQF) defines a learning outcome as what a learner understands and can do at the end of a learning process. Learning outcomes are learner oriented.

#### Various Definitions of Learning Outcomes:

- Learning Outcomes are statements of what is expected that the learner will be able to do as a result of learning the activity. (Jenkins and Unwin, 2001)
- Learning Outcomes are statements that specify what learners will know or be able to do as a result of a learning activity. Outcomes are usually expressed as knowledge, skills or attitudes. (American Association of Law Libraries 4 )
- Learning Outcomes are an explicit description of what a learner should know, understand and be able to do as a result of learning. (Bingham, 1999)
- Learning Outcomes are statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning. (ECTS Users' Guide, 2005)

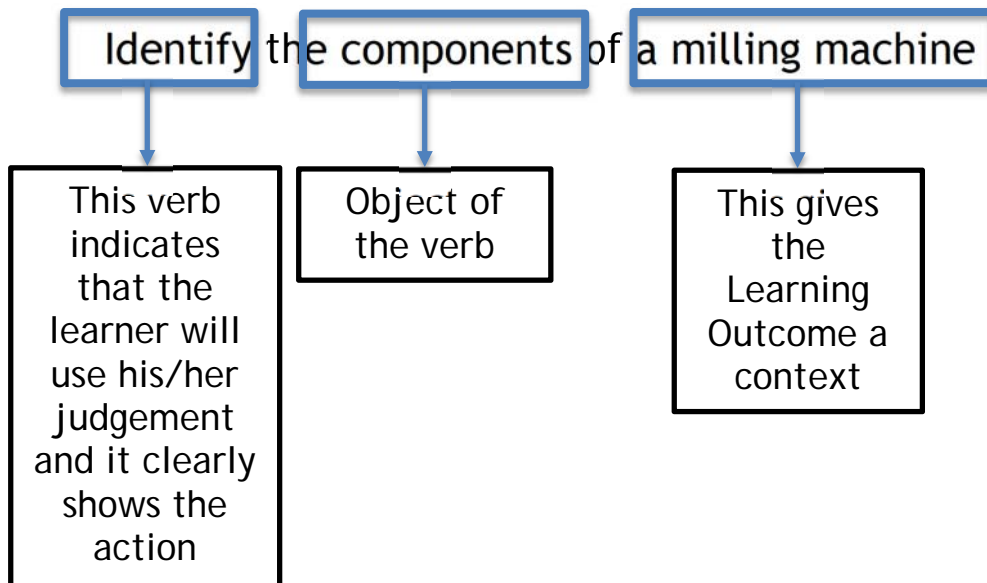
## Writing Learning Outcomes<sup>1</sup>:

1. Begin each learning outcome with an **action verb**, followed by the object of the verb followed by a phrase that gives the context.
2. Use only **one verb** per learning outcome.
3. **Avoid vague terms** like learn, be exposed to, be acquainted with, and be aware of. These terms are associated with teaching objectives rather than learning outcomes.
4. **Avoid complicated sentences.**
5. Ensure that the learning outcomes **relate to the overall outcomes of the programme.**
6. The learning outcomes must be **observable and measurable.**
7. Ensure that the learning outcomes are **capable of being assessed.**
8. When writing learning outcomes, bear in mind the timescale within which the outcomes are to be achieved.
9. Ask yourself if it is realistic to achieve the learning outcomes within the time and resources available.
10. Check that the level of the outcome is in line with level descriptors.

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<sup>1</sup> [https://www.tcd.ie/CAPSL/Assets/pdf/Curriculum\\_Design/WritingLearningOutcomes\\_Dec2019.pdf](https://www.tcd.ie/CAPSL/Assets/pdf/Curriculum_Design/WritingLearningOutcomes_Dec2019.pdf)

## Writing an Outcome:



## Example of Learning Outcomes from an MCAST Qualification:

Unit Title: *Supporting Business Activities*

**Learning Outcomes**

On completion of this unit the student will be able to

1. Explain the administrative services required to support organizational business activities
2. Examine the impact of organisational structures on business activities and organisational culture and awareness
3. Contribute to quality improvement through review of administrative services
4. Plan and organise work practices to support business activities

## 4. Knowledge, Skills and Competences:

The Knowledge, Skills and Competences are important factors in a Unit of Learning Outcomes. Competences are a combination of knowledge and skills done with autonomy and responsibility.

The knowledge section will indicate outcomes that are related to the knowledge the learners need to have to be able to achieve the competence. Then the learners will use that knowledge to be able to obtain different skills which are divided in Applied



Knowledge and Understanding, Communication Skills, Judgemental Skills and Learning Skills, which together will give the ability to the learner to achieve the competences.

The Knowledge, Skills and Competences are all mapped to the main learning outcomes. It is important to note that the competences and knowledge must all be mapped to the main learning outcomes, hence for example Main Learning Outcome 4 cannot not be mapped to any outcome within the Competences or the Knowledge section.

### Examples of Verbs that can be used within the sections:

<b>Knowledge</b>	<b>Knowledge and Understanding</b>	know, understand, be familiar with
<b>Skills</b>	<b>Applying Knowledge and Understanding</b>	apply, practise, demonstrate, show, plan, design, operate, assemble, use, construct, prepare, create, compose, arrange
	<b>Communication Skills</b>	write, illustrate, report, describe, discuss, explain, state, name, express, review, speak, present, interact
	<b>Judgemental Skills</b>	choose, judge, identify, evaluate, analyse, assess, interpret, argue, select, compare, rate, measure, propose, appraise, estimate, examine, categorise
	<b>Learning Skills</b>	evaluate own learning, proceed, study, undertake further studies
<b>Competences</b>	<b>Autonomy and Responsibility</b>	collaborate, comply, deal with, ensure, be responsible for, carry out tasks, guide, supervise, monitor, authorise, manage, create, produce, represent, advise, negotiate, sell

### Examples from an MCAST Qualification:

Competences At the end of the unit the learner will have acquired the responsibility and autonomy to:
1. Comply with local regulations for the installation of single-phase PV installations.
2. Carry out tasks to complete a functional SP PV system.
3. Be responsible for the installation of a SP PV system.

**Knowledge At the end of the unit the learner will:**

1. Be familiar with local regulating authorities for PV systems.
2. Understand the regulations that govern PV installations.
3. Know the implications of regulations for PV installations.
4. Be familiar with feed in tariffs
5. Be familiar with different methods of renewable technologies installed locally.

**Skills At the end of the unit the learner will have mastered the following skills:**

<b>Applied Knowledge and Understanding</b>	1. Apply standard regulations in the tasks performed.
	2. Practice good workmanship skills.
	3. Construct PV systems according to common standards.
<b>Communication Skills</b>	1. Describe the process required to complete the task.
	2. Interact with subordinates.
	3. Explain the actions required to complete the job.
<b>Judgmental Skills</b>	1. Identify limitations for installation works.
	2. Assess limitations of installation works.
	3. Propose modifications for improvements of final product.
<b>Learning Skills</b>	1. Study the implications of newly or already installed SP PV installation.
	2. Proceed with modifications on new or already installed SP PV installations.

## 5. Assessment Criteria:

A unit of learning outcomes requires assessment to verify that the Main Learning Outcomes of the unit have been achieved. Assessment criteria show the standards that must be met and thus they are the evidence gathered to demonstrate that the learning outcomes have been achieved or otherwise. This is what makes it transparent and trustworthy.

The role of assessment criteria within a unit of Learning Outcomes is to provide clear and observable standards of achievement for each learning outcome describing what the learner is expected to do to demonstrate that the learning outcome has been achieved. However, it is very important to note that an Assessment Criteria is not the task that is given to the learners, the task however should be derived from the criteria and one must show very clearly which criterion is being targeted with a particular task. In fact, the assessment criteria specify how the task will be evaluated.

### Writing Assessment Criteria:

Assessment criteria are written in a similar manner to a Learning Outcomes, in the sense that they start with an action verb, should be clear, measurable and observable, hence verbs such as 'Be aware' are not appropriate.

Also, the assessment criteria must:

- Reflect the level of the unit, hence even the verbs used must show this. Higher levels require more high-level verbs when compared to lower levels. This is reflected in the verbs such as 'define' for lower levels and 'appraise' for higher levels.
- Verbs must be mapped to the Bloom's Taxonomy Domain as indicated in the table within the unit template.
- Have only one verb, since this makes it easier for assessments and mapped to one domain.
- Reflect the aims of the unit.
- Be mapped to the main outcomes of the unit.
- Not repeat the learning outcomes and assessment grading criteria.
- Expand on the outcomes to indicate that the learner has achieved that outcome, since it is testing it.

In the past, MCAST had a standardised structure for Assessment Criteria for each Level. For example, Level 4 units had the following assessment structure:

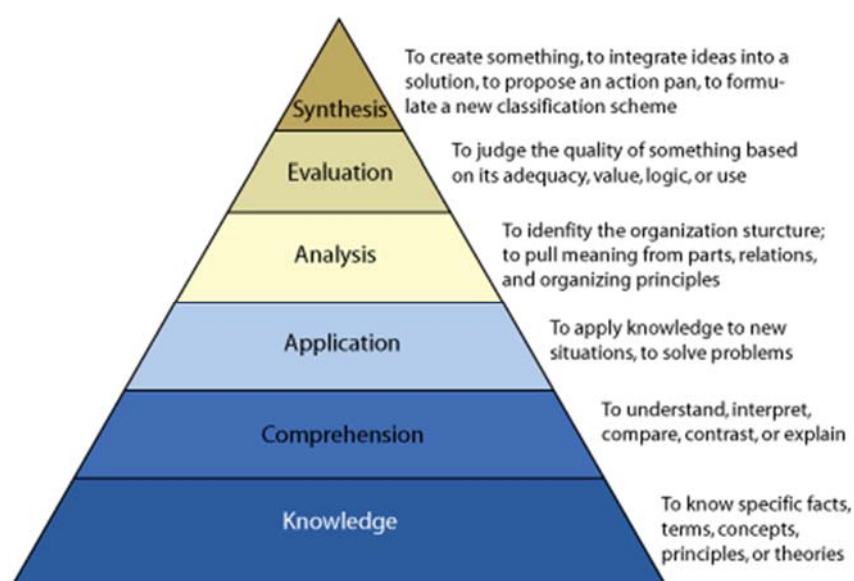
Blooms Taxonomy Domain	Number of Criteria	Number of Marks per criteria	Percentage of total Mark
Knowledge and Understanding (K&U)	9	5 marks	45% of total mark
Application and Analysis (A&A)	5	7 marks	35% of total mark
Synthesis and Evaluation (S&E)	2	10 marks	20% of total mark

However, as the domains vary according to the subject and content of the unit, MCAST has decided to introduce more flexibility in the choice and number of assessment criteria under the different domains.

Lower levels have a higher percentage on the knowledge domain but as you go up to higher levels this change, therefore for a level 6 the Knowledge and Understanding percentage will be 35% and the Synthesis and Evaluation section will be 30%.

MCAST also use another structure for Criteria, for the Creative Arts Institute, which uses a system of 10 criteria with 10 marks each distributed within the blooms taxonomy domains. This is not the normal set-up, but MCAST is flexible to addressing needs that arise.

In every scenario, the total mark should always be 100.



## Bloom's Taxonomy

Examples of Assessment Criteria Section from an MCAST Qualification:

Learning Outcome	Assessment Criteria	Marks	K&U	A&A	S&E
<b>LO1. Review regulations related to connecting renewable electrical sources to the national grid.</b>	1.1 Describe regulations related to PV installations in the local market.	5	X		
	1.2 Identify important aspects of the regulations for feed in tariffs.	5	X		
	1.3 Solve problems on tariffs to explain the financial advantage of using PV installations.	5	X		
	1.4 Outline important regulations related to PV installations as indicated in the IEE regulations.	7		X	

<b>LO3. Build a functional PV system.</b>	3.1 Assemble a complete SP PV system. (panels and connection to batteries or grid).	10			X
	3.2 Apply all necessary mechanical considerations for the assembled PV system.	7		X	
	3.3 Compile a check list to confirm materials and standard for a complete PV installation.	10			X



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