

EVALUATE EFFECTIVE  
IMPROVING  
IMPLEMENT DEVELOP  
ASSESSMENT LEARNING  
PROGRESSION

# **Guide Number 1**

## **How to write Learning Outcomes**

**Bridget Winwood**  
**Teaching Fellow: Assessment Development**  
**Faculty of Health & Wellbeing**  
**&**  
**Chris Glover**  
**Assessment for Learning (TALI) Co-ordinator**  
**Learning and Teaching Institute**  
**April 2008**

EVALUATE  
IMPROVING  
IMPLEMENT DEVELOP  
ASSESSMENT EFFECTIVE  
LEARNING  
PROGRESSION

Revised from

**Rosie Bingham, Sue Drew & Mark Pettigrew**  
**Learning & Teaching Institute**  
**September 2005**



**Sheffield  
Hallam University**

SHARPENS YOUR THINKING

# Contents

1. INTRODUCTION .....	3
2. WHAT ARE LEARNING OUTCOMES ? .....	3
2.1 LOs are key to planning the learning process .....	3
2.2 Learning outcomes are assessable .....	4
3. WHY ARE LEARNING OUTCOMES IMPORTANT? .....	4
3.1 LOs help in planning learning .....	4
3.2 LOs provide the standard benchmark for UK HE .....	4
Compliance .....	4
Internal Quality Processes .....	4
4 WRITING LEARNING OUTCOMES .....	5
4.1 A starting point and guide .....	5
4.2 What should they include? .....	5
4.3 Tips for writing learning outcomes .....	6
4.4 Try to avoid: .....	7
4.5 Level and verbs in learning outcomes .....	7
4.5.1 Knowledge .....	8
4.5.2 Comprehension .....	8
4.5.3 Application .....	8
4.5.4 Analysis .....	9
4.5.5 Synthesis .....	9
4.5.6 Evaluation .....	9
An example .....	10
5 ASSESSMENT OF LEARNING OUTCOMES .....	10
5.1 Assessment methods .....	11
5.2 Assessment Criteria .....	11
6 LEARNING OUTCOMES AND TEACHING AND LEARNING METHODS .....	12
7 CHECKLIST FOR WRITING LEARNING OUTCOMES .....	12
Appendix .....	13
Knowledge and Understanding .....	14
Cognitive/intellectual skills .....	16
Subject-Specific Skills may also be Professional/Practical Skills, depending on the subject area .....	18
Professional or Key Skills .....	19



# 1. INTRODUCTION

This booklet is the first in the series of "How to Guides", which will include:

No. 2 How to write assessment criteria

No. 3 How to structure feedback to learners using assessment criteria

There has been a move to define Higher Education courses in terms of the outcomes of the learning process for the learner, rather than in terms of course content.

The Quality Assurance Agency (QAA) for Higher Education (see the 'Publications' section at <http://www.qaa.ac.uk>) sees the identification of learning outcomes as crucial.

QAA indicates that learning outcomes should cover:

- knowledge and understanding; intellectual skills; subject specific skills; Key Skills <http://www.qaa.ac.uk/academicinfrastructure/programSpec/guidelines06.asp>
- The Framework for Higher Education Qualifications gives (in Annex 1) descriptors for qualifications <http://www.qaa.ac.uk/academicinfrastructure/FHEQ/default.asp>.
- Subject Benchmark Statements specify essential learning outcomes for subjects <http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp>

Identifying learning outcomes is key to planning courses and their elements (modules, individual learning activities etc). For example, Sheffield Hallam's Programme Specification Template requires course planners to identify the aim for a course (e.g. *for an Engineering degree that the course develops graduates who are professionally capable*) and then the learning outcomes needed to meet that aim (e.g. *these might relate to the knowledge base of engineering, the application of this knowledge and required personal skills/attitudes and ways of thinking*).

There are different expectations of learners at different stages of a course. These changing expectations are not merely 'more of the same' and should be reflected in the outcomes. As a course progresses, for example, the learner is expected to become less dependent and more able to deal with unstructured and ambiguous situations.

## 2. WHAT ARE LEARNING OUTCOMES ?

**Learning outcomes (LOs) are an explicit description of what a learner should know, understand and be able to do as a result of learning. They may include attitudes, behaviours, values and ethics.** Describing a course in terms of learning outcomes puts the focus on the learner rather than on content (although learning outcomes do include content).

### ***2.1 LOs are key to planning the learning process.***

Identifying LOs is a key starting point whether developing a course, a module or a class session, learning activity or Blackboard site. Each of the following aspects feeds into the others and should be developed holistically. To give coherence, you may need to re-visit and modify each aspect during the development process.

- Aims should lead into LOs
- LOs should reflect aims
- The learning and teaching strategy should enable learners to achieve the LOs
- The assessment and feedback strategies should help learners see how far they are achieving the outcomes (assessment for learning) and indicate to stakeholders that learners have achieved them (assessment for grading)
- Assessment criteria should indicate the performance expected against the LOs (and indicate performance expected against grades).

## **2.2 Learning outcomes are assessable.**

LOs indicate the benchmark for what must be achieved to pass a module or course, in terms of the range of outcomes and their level. This means that they must be clear, capable of valid assessment and be pitched at the level required to pass (descriptions of performance required to pass or to achieve certain grades are provided by assessment criteria - see the Guide no. 2 'How to write Assessment Criteria').

## **3. WHY ARE LEARNING OUTCOMES IMPORTANT?**

### **3.1 LOs help in planning learning.**

They:

- enable tutors to be more precise in planning, supporting and assessing learning
- enable effective linkages between learning and teaching methods, and assessment and feedback methods
- indicate the level of learning expected and are the basis for writing assessment criteria
- help make explicit any underpinning values, attitudes and skills that may not be reflected in descriptions of content
- allow for the possibility of assessing and recording unplanned, 'windfall', or 'emergent' learning outcomes, particularly where a learning contract is used and LOs are negotiated

### **3.2 LOs provide the standard benchmark for UK HE**

#### **Compliance**

LOs summarise various aspects of learning (knowledge and skills). Articulation of all the learning outcomes enables judgements to be made about the fitness for purpose/practice of the module/award. They need to be at the right level. The totality of the LOs for an award provides the evidence for validation panels to confirm that outcomes are matched against national framework/Professional Statutory Regulatory Bodies (PSRB) requirements and that the student experience is consistent with LTA approaches.

#### **Internal Quality Processes**

Monitoring, moderation and evaluation of LOs through assessment processes provide the assurance (QA) that the University is compliant with the validated statements. Improvements in delivery, patterns, assessment criteria, feedback, VLE development etc. form the basis for enhancement (QE).

Using learning outcomes empowers learners.

- Learners can make informed choices about the courses or modules that are appropriate for them. The clearer the LOs, the better informed the learner (reducing problems related to mismatch, demotivation and retention, as well as avoiding loss of opportunity for the learner).
- LOs provide a mechanism whereby learners might identify relevant previous learning (e.g. *for Accreditation of Prior Learning, APEL*).

## 4 WRITING LEARNING OUTCOMES

### 4.1 A starting point and guide

Sheffield Hallam's Academic Framework includes the University's 'Generic Learning Outcomes by Level'. These are given in the Appendix of these guidance notes and are also available online.

[https://staff.shu.ac.uk/sas/asqe/academic\\_review/ac\\_pol\\_frwws\\_regs/glo\\_by\\_level.asp](https://staff.shu.ac.uk/sas/asqe/academic_review/ac_pol_frwws_regs/glo_by_level.asp)

They are based on QAA's Framework for Higher Education Qualifications and allow for Sheffield Hallam policies (e.g. *Key Skills Policy*). You can use them to help you develop LOs for your Programme Specification, for a Module Description or for a specific learning activity.

Your LOs need to be worded appropriately for your subject and your learners.

- how LOs change through the levels (e.g. *how is a level 5 outcome different from a level 4 or 6 outcome*). Looking across the columns in the 'Generic Learning Outcomes by Level' will help you see this.

The appendix in this guide has taken the broad areas of SHU programme specification LO requirements and used this to illustrate how to word your LOs. These reflect QAA requirements (i.e. knowledge and understanding; intellectual skills; subject specific/professional/Key skills).

Although the 'Generic Learning Outcomes by Level' are a very helpful starting point, the following notes provide further help. LOs need careful thought since they are so key to planning learning and teaching methods and to assessment. Spending time writing effective LOs makes the subsequent design of learning, teaching, assessment and feedback strategies much easier.

### 4.2 What should they include?

The University's 'Generic Learning Outcomes by Level' (see Appendix or go to [https://staff.shu.ac.uk/sas/asqe/academic\\_review/ac\\_pol\\_frwws\\_regs/glo\\_by\\_level.asp](https://staff.shu.ac.uk/sas/asqe/academic_review/ac_pol_frwws_regs/glo_by_level.asp)) incorporate:

- the behaviour, values or attitudes required from the learner
- the learner's increasing ability to deal with complexity and ambiguity as the level of the course increases.

It is important to word the LO accurately. Not doing so may cause difficulties when you come to develop assessment tasks and assessment criteria. LOs start with a phrase such as 'by successfully engaging with this course/module, the learner will be able to.....', followed by:

- an active verb or phrase
- an object of the verb
- a clause or phrase that provides the context or condition.

*For example: The learner should be able to.....*

Active verb/phrase	Object	Context/condition
<i>explain and evaluate</i>	<i>the relationship</i>	<i>between the company directors and shareholders</i>
<i>describe and illustrate</i>	<i>the principles</i>	<i>of behaviourist psychology</i>

Often it is the verb and object that show the behaviour/values/attitudes required from the learner, and the context or condition that shows the degree of autonomy required and the complexity and/or significance of the situation.

LOs should be expressed in clear and simple terms, to ensure that all involved (*e.g. learners, tutors, employers*) understand them – academic jargon and complex language are unhelpful.

### **4.3 Tips for writing learning outcomes**

- Previously, most modules had between 4 and 8 learning outcomes. – but 8 is on the high side! 4 would be preferable, but there should be no more than 6.
- The LOs should relate to the aims of the course/module/learning activity.

Each LO should represent what is needed to pass - not what is expected from the highest achiever (you can indicate what is required for high achievement by developing assessment criteria in grading bands: see ' Guide Number 2: How to Write Assessment criteria

- LOs underpin learning, teaching and assessment and must be given to learners in course and module documents.
- You may not get LOs right first time and may need to re-visit them in the light of developing learning, teaching and assessment/feedback strategies. Writing effective LOs may cause you to revisit your aims.
- You need to write the LOs in such a way that it will be possible to judge if they have been achieved. You may find that when you write assessment criteria you need to reword your LO. It is very helpful to write the LOs and assessment criteria together.
- Look at the balance between the different types of LOs (i.e. knowledge and understanding; intellectual skills; subject specific/professional/Key skills). Does this reflect what your course/module/learning activity is about?
- Try to ensure coherence. If you are writing a Programme Specification, the LOs should reflect the totality of what the learner should achieve by the end of the award – i.e. what they should know, what they should be able to do. If you are writing a module, your LOs should relate to the overall LOs in the Programme Specification. If developing a learning activity, the LOs should relate to those in the module description. Where/how does a module/learning activity fit into the course? What have learners done before and what they will progress to? – i.e. how is incremental learning being addressed through L4,5 & 6?

Are all your LOs of equal importance? Which are essential or desirable? How will your learners know this? Should all LOs be assessed for grading?

- Could your typical learner achieve the LOs within the timescale and notional learning hours (i.e. 10 learning hours per credit point)?
- Involve others in writing LOs. You could ask if they understand your LOs (*e.g. colleagues, employers, learners*) and ask previous learners what outcomes they value – and could achieve!.

#### **4.4 Try to avoid:**

- evaluative words e.g. "effective" and "adequate". Such words belong to the assessment criteria
- ambiguous verbs such as "understand", "know", "be aware" and "appreciate". What level of 'understanding' do you mean?
- being imprecise e.g. '*demonstrate the ability to ...*'. Do you want the learner to actually do something or demonstrate that they could do it if needed. If you have '*demonstrate the ability to ...*'. you would assess the demonstration, not the ability
- educational jargon
- confusing the learning task and the outcome e.g. '*write an essay on post modernism*'. This LO means you want the learners to learn how to write an essay on post modernism. It does not mean that you want them to be able to explain or explore or discuss post modernism
- long lists of separate LOs that are variations of the same outcome
- LOs that are not easily assessed e.g. '*improve your ability to...*'. Here you would need to establish a learner's starting point in order to identify improvement. It also gives no indication of the level of performance needed
- LOs that are too broad (they will be unassessable) or too narrow (can be restrictive, leading to over-detailed and cumbersome lists)

#### **4.5 Level and verbs in learning outcomes**

**The verb you use in an LO is critical!** This is not just 'nit-picking' but is an essential principle. The verb indicates the level of learning required e.g. '*list*' as opposed to '*explain*'.

It will help to look at the verbs in the University's 'Generic Learning Outcomes by Level' (Appendix or go to [https://staff.shu.ac.uk/sas/asqe/academic\\_review/ac\\_pol\\_frwks\\_regs/glo\\_by\\_level.asp](https://staff.shu.ac.uk/sas/asqe/academic_review/ac_pol_frwks_regs/glo_by_level.asp) ) to see how they change from one level to the next. For example, learners might describe something at level 4, apply knowledge at level 5 and critically analyse it at level 6. This is not to say that some higher order skills might not be needed at low levels of a course - it depends on the course. You might wish to begin to develop higher level skills at lower levels and some learners may be capable of a higher level of achievement. However, the LOs **define what is needed to pass**.

Here are some examples of verbs you might use.



### 4.5.1 Knowledge

This might cover, for example:

- the terminology of the subject
- specific facts
- conventions
- trends and sequences
- classifications and categories
- criteria
- methodology
- principles and generalisations
- theories and structures.

Some verbs which may help

- recall
- record
- list
- reproduce
- define
- repeat
- name
- outline
- state
- recount
- present
- match

### 4.5.2 Comprehension

This covers the ability to **convey** what is understood

Some verbs which may help

- restate
- identify
- discuss
- clarify
- locate
- recognise
- review
- translate
- explain
- tell
- express
- describe
- report
- review
- tell
- interpret

### 4.5.3 Application

This covers the ability to use a theory or information in a new situation.

Some verbs which may help

- exemplify
- schedule
- operate
- dramatise
- sketch
- apply
- employ
- interpret
- use
- practise
- illustrate
- act a role

#### 4.5.4 Analysis

This covers the ability to break down material/ideas into constituent parts, showing how they relate to each other and how they are organised.

Some verbs which may help

- distinguish
- appraise
- debate
- experiment
- solve
- differentiate
- inspect
- relate
- contrast
- examine
- investigate
- calculate
- compare
- question
- analyse
- analyse
- test
- make inventory
- criticise
- chart

#### 4.5.5 Synthesis

This may include the ability to work with elements, parts of something and combine them in a way which constitutes a pattern, plan or structure which was not there before.

Verbs to help you.

- compose
- synthesise
- develop
- arrange
- devise
- assemble
- manage
- design
- set up
- build up
- derive
- propose
- create
- redefine
- modify
- plan
- construct
- formulate
- teach

#### 4.5.6 Evaluation

This is the ability to construct an argument, compare opposing arguments, make judgements etc.

Verbs to help you.

- judge
- evaluate
- compare
- revise
- appraise
- choose
- estimate
- criticise
- score
- rate
- value
- discriminate
- select
- assess
- measure

## An example

Here is an example of how you might indicate **differences in level** for working in groups, **based on** the 'Working with Others' LOs in the University's Generic Learning Outcomes by Level (see Appendix). They go up in level by range of aspects and contexts, amount of autonomy (e.g. discretion in how to operate) and cognitive level.

Level 3	Level 4 (1 <sup>st</sup> year undergrad.)	Level 5 (2nd year undergrad.)	Level 6 (3rd year undergrad.)	Level 7 (Masters)	Level 8 (PhD)
work in a group on a specified course task; meet the objectives given; follow guidance to meet own responsibilities	work in groups on specified course tasks to meet the objectives given; from guidance given, choose approaches to meet own responsibilities	work in groups on course and work tasks to meet the objectives given; choose and use approaches to meet own responsibilities	agree group objectives and own responsibilities for course and work tasks; identify, use and evaluate strategies to meet objectives and responsibilities.	develop, agree and achieve group aims and outcomes; identify how group members will contribute; encourage ethical working practices; agree plans, identify resources, implement, monitor, evaluate and amend plans.	identify and use ways of working in a professional way with others to achieve aims and outcomes and to implement plans. Continually refer and respond to group members.

## 5 ASSESSMENT OF LEARNING OUTCOMES

Designing clear and unambiguous LOs makes it much easier to plan assessment. This section provides an overview only, to alert you to issues - further information and ideas on assessment can be obtained from:

- The Learning and Teaching Institute, Level 7, Adsetts Centre – x 3053
- Faculty Heads of Learning, Teaching and Assessment (LTA) and LTA Co-ordinators and Teaching Fellows, Faculty Heads of Quality, and Quality Co-ordinators
- The HE Academy Subject Centres  
<http://www.heacademy.ac.uk/ourwork/networks/subjectcentres>

It will help to look at the following.

University Assessment and Feedback Policy Statement 2008

University Standard Assessment Regulations

[https://staff.shu.ac.uk/sas/asqe/awards\\_and\\_regulatory\\_frameworks/](https://staff.shu.ac.uk/sas/asqe/awards_and_regulatory_frameworks/)

Sheffield Hallam University LTA Strategy 2006-2010

[https://staff.shu.ac.uk/lits/lti/documents/9439%20Final%20A4%20version%20LTA%20Strategy%202006\\_10.pdf](https://staff.shu.ac.uk/lits/lti/documents/9439%20Final%20A4%20version%20LTA%20Strategy%202006_10.pdf)

## 5.1 Assessment methods

All assessment methods must give feedback on the LOs, and give an indication of the learner's achievement in relation to the outcomes.

Assessment methods should be valid and help learners learn. Assessment is integral to the learning process. We might consider the example of an LO for group work skills. Assessing a product (e.g. a report) produced by the group is a valid assessment of the ability to produce the product, not of the ability to work in a group (e.g. one group member may have produced it alone). Valid methods for assessing group work skills might include records of interactions (e.g. minutes of meetings, videos, tapes), observation of the group, peer feedback from group members or 'clients', self evaluations of group processes etc.

How you word the LOs has implications for assessment, as it often suggests the most appropriate assessment methods. For example:

<b>Learning outcome: The learner should be able to...</b>	<b>Assessment method(s):</b>
..make policy recommendations to managers on staff development	Oral presentation or report
...work co-operatively as a team member	Reflective log or peer review

If planning a course, look at the guidance notes in the templates for the Programme Specification and the Module Description [https://staff.shu.ac.uk/sas/asqe/academic\\_approvals/](https://staff.shu.ac.uk/sas/asqe/academic_approvals/).

It is now a requirement for programme validation that matrices show which LOs appear in which modules at which level of the course, together with an indication of assessment methods. This helps:

- avoid over-replication of LOs across modules
- ensure a balance of the skills/knowledge/attributes being developed and/or assessed across modules
- ensure a balance of assessment methods across modules (e.g. avoiding over or under using methods).

## 5.2 Assessment Criteria

Once LOs have been identified, assessment criteria need to be developed – these will answer the question “**How will I know if the learner has achieved the learning outcome and how well?**”

It is important to note that the assessment criteria should link to the LOs (not to the task - the task is based on the LO). Assessment criteria should be clear to learners (and other stakeholders e.g. *workplace supervisors if relevant*), and should indicate how their work will be judged and that grades/marks are awarded fairly. 'Guide Number 2

How to Write Assessment criteria will help you here.

## 6 LEARNING OUTCOMES AND TEACHING AND LEARNING METHODS

Your learning and teaching methods should be closely connected to your assessment methods and should help your learners achieve the LOs. Different LOs will require different learning and teaching methods. To consider appropriate options you could:

- consult your Faculty Head of LTA or LTA Co-ordinators
- get ideas from the HE Academy Subject Centres  
<http://www.heacademy.ac.uk/ourwork/networks/subjectcentres>

Learners will find it helpful if you discuss the LOs

- at the beginning of the course/module/learning activity (research indicates that learners learn more readily when they are clear about what they should be learning)
- at the end of the course/module/learning activity (so they are clear about what they should now know, do or understand).

## 7 CHECKLIST FOR WRITING LEARNING OUTCOMES

✓ or X

Do the LOs relate to the aims (of the course/module/learning activity)?	
Do they relate to overall course/module outcomes?	
Have you discussed the LOs with colleagues, learners or other stakeholders?	
Is the balance of types of LOs appropriate for your course/ module/activity?	
Are they at an appropriate level?	
Is the language unambiguous and understandable?	
Are they all assessable?	
Have you reflected the types of LOs given in the University's 'Generic Learning Outcomes by Level'?	
Is the number of LOs reasonable to assess (for you and the learners)?	
Have you avoided repetition of LOs (you may have used different terms to mean the same thing)?	
Are the LOs achievable within the timescale?	
Have you avoided LOs that are really assessment criteria?	
Are any too broad to be easily assessed?	
Are any too narrow, so as to be too restrictive?	

# Appendix

**Knowledge and Understanding**

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<b>1. describe given</b> <ul style="list-style-type: none"> <li>• Facts</li> <li>• Principles</li> <li>• Concepts</li> <li>• Theories</li> <li>• Values/beliefs/ethics/aesthetics.</li> </ul>	<b>1. describe the essential</b> <ul style="list-style-type: none"> <li>• facts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics/aesthetics.</li> </ul>	<b>1. identify and explain the essential</b> <p>facts principles</p> <ul style="list-style-type: none"> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> </ul> and the way in which they developed.	<b>1. identify and explain, in sufficient detail for the purpose, essential and other important</b> <ul style="list-style-type: none"> <li>• facts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> </ul> some of which are at the forefront of those areas.	<b>1. select and explain those appropriate from the range of</b> <ul style="list-style-type: none"> <li>• facts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics/aesthetics</li> <li>• current problems/issues</li> <li>• current research and advanced scholarship</li> <li>• new insights</li> </ul> many of which are at the forefront of those areas, and are complex and conceptually challenging.	<b>1. identify, explore and interpret aspects at the forefront of a substantial body of knowledge, including any ethical dilemmas.</b>
		<b>2. apply</b> <ul style="list-style-type: none"> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> </ul> between specified contexts <i>e.g. between: subjects/topics; subject and professional work areas.</i>	<b>2. identify where</b> <ul style="list-style-type: none"> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> </ul> are appropriate for a new/different context and apply them there <i>e.g. between: subjects/topics; subject and professional/areas</i>	<b>2. apply selected aspects (see 1 above) to the study, evaluate their appropriateness and justify their selection. Apply some aspects in an original way.</b>	<b>2. evaluate the appropriateness of selected aspects (see 1 above), justify their selection, and apply them to create new insights.</b>

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
			3. identify in what way aspects of the topic/subject are uncertain, ambiguous, contradictory or limited.	3. explore the implications of the uncertain, ambiguous, limited or contradictory nature of the selected aspects (see 1 above)	3. evaluate the implications of the complex, unpredictable/ uncertain, ambiguous/ contradictory or incomplete/deficient nature of the selected aspects (see 1 above)
					4. create new knowledge/outcomes through original research/advanced scholarship.



**Cognitive/intellectual skills**

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/prof'nal/ work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<p>1. explain, give reasons for, and analyse essential</p> <ul style="list-style-type: none"> <li>• facts</li> <li>• objects/artefacts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> <li>• information/data.</li> </ul> <p>using given classifications/principles</p>	<p>1. explain, give reasons for, analyse and evaluate essential</p> <ul style="list-style-type: none"> <li>• facts</li> <li>• objects/artefacts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> <li>• information/data.</li> </ul> <p>using given classifications/principles</p>	<p>1. critically analyse, evaluate, and identify the relevance and significance of</p> <ul style="list-style-type: none"> <li>• facts</li> <li>• objects/artefacts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• values/beliefs/ethics / aesthetics</li> <li>• arguments</li> <li>• information/data</li> <li>• processes and approaches.</li> </ul>	<p>1. make judgements by critically analysing, evaluating and identifying the relevance and significance of</p> <ul style="list-style-type: none"> <li>• facts</li> <li>• objects/artefacts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• assumptions</li> <li>• values/beliefs/ethics / aesthetics</li> <li>• arguments</li> <li>• information/data (which may be incomplete)</li> <li>• processes and approaches.</li> </ul>	<p>1. make informed judgements by critically evaluating</p> <ul style="list-style-type: none"> <li>• facts</li> <li>• objects/artefacts</li> <li>• principles</li> <li>• concepts</li> <li>• theories</li> <li>• assumptions</li> <li>• arguments</li> <li>• values/beliefs/ethics /aesthetics</li> <li>• current problems/issues</li> <li>• current research and advanced scholarship</li> <li>• new insights</li> <li>• information/data (which may be incomplete)</li> <li>• processes and approaches.</li> </ul>	<p>1. make informed judgements by critically evaluating relevant complex issues in specialist fields, aspects which may be new, uncertain, unpredictable or incomplete/deficient, ambiguous/contradictory.</p>
<p>2. identify the essential aspects of a topic/subject/object/artefact, using given procedures/ formats.</p>	<p>2. summarise the essential aspects of a topic/subject/object/artefact, using given procedures/ formats.</p>	<p>2. summarise the essential aspects of a topic/subject/object/artefact. Coherently, pull information together.</p>	<p>2. summarise essential and other important aspects of a topic/subject/object/artefact. Coherently pull information together. Make and justify links between aspects.</p>	<p>2. set studies within a context. Synthesise information/data, create and justify links between aspects.</p>	<p>2. set studies within a context, synthesise information/data, create and justify links between aspects to develop models/theories/objects/artefacts.</p>

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/prof'nal/ work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
3. pull together essential aspects of information/situations/objects/artefacts which are <ul style="list-style-type: none"> <li>• specified,</li> <li>• routine,</li> <li>• predictable</li> <li>• complete</li> </ul> using given procedures/formats	3. draw conclusions about information/situations/objects/artefacts which are <ul style="list-style-type: none"> <li>• specified,</li> <li>• routine,</li> <li>• predictable</li> <li>• complete</li> </ul> using given procedures/formats	3. make and justify decisions about information/situations/objects/artefacts which are <ul style="list-style-type: none"> <li>• specified,</li> <li>• straightforward,</li> <li>• predictable</li> <li>• complete</li> </ul>	3. make and justify decisions about information/situations/objects/artefacts which are <ul style="list-style-type: none"> <li>• complex, and may be</li> <li>• unpredictable</li> </ul>	3. make and justify decisions about information/situations/objects/artefacts which are <ul style="list-style-type: none"> <li>• complex</li> <li>• unpredictable/uncertain</li> <li>• incomplete</li> <li>• ambiguous</li> </ul>	3. make and justify decisions about information/situations/objects/artefacts which are <ul style="list-style-type: none"> <li>• complex</li> <li>• specialised</li> <li>• unpredictable/uncertain</li> <li>• incomplete/deficient</li> <li>• ambiguous/contradictory</li> </ul>
4. present aspects of the subject in an order which enables understanding, using given procedures/formats	4. sort and order aspects of the subject into a logical line of argument	4. produce a line of argument supported by relevant evidence.	4. devise and sustain an argument, supported by valid/significant evidence.	4. devise and sustain an argument, supported by valid/significant, evaluated evidence. Include some elements which are new/original/unusual and may offer new insights or hypotheses.	4. meet the standards set by peers in the discipline, in terms of devising and sustaining a new or original argument.

**Subject-Specific Skills may also be Professional/Practical Skills, depending on the subject area**

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
1. carry out restricted and specified methods of enquiry and production, with guidance.	1. use specified methods of enquiry and production.	1. identify and explain the main, specified methods of enquiry and production, and use them appropriately	1 identify, justify and use methods of analysis, enquiry and production which are appropriate to tasks, including self-initiated tasks.	1. critically evaluate methodologies and methods which create and interpret knowledge/outcomes, in order to select and use those most appropriate. Identify appropriate good practice.	1. conceptualise and design a project to generate new knowledge/outcomes, identify and justify methodologies and use/develop/adapt advanced methods of academic enquiry/production. Record work in a way which enables use and facilitates auditing.
2. carry out restricted and specified technology/ techniques/ processes/terminology, with guidance.	2. use specified technology/ techniques/ processes/terminology	2. use specific technology/ techniques/ processes/ terminology.	2. select and use appropriate technology/ techniques/ processes/terminology.	2. use and adapt technology/techniques/ processes/terminology.	2 adapt, develop and master technology/ techniques/processes/ terminology
			3. extend and improve knowledge, learning and performance and outcomes by applying methods and techniques learnt e.g. <i>in a new situation</i>	3. extend and improve knowledge/outcomes by applying and adapting methods and techniques, some of which are new, original or unusual.	3. create new knowledge/outcomes by developing, applying and adapting methods and techniques.

### Professional or Key Skills

In Programme Specifications you are required to give separate information on Professional/Practical Skills and Key Skills. They are combined below, as whether these are seen as Professional/Practical or Key (or indeed Subject Specific Skills) will depend on the subject area and context. They may also be Career Management Skills.

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<b>Solving problems</b>  1. to solve given, defined problems, carry out specified approaches and check the solution has solved the problem	1. to solve given, defined problems, use specified approaches and evaluate the approaches and solutions.	1. to solve straightforward problems (e.g. <i>course/professional/work/career related</i> ), identify, explain and use approaches. Evaluate the approaches and solutions.	1. identify problems(e.g. <i>course/ professional /career related</i> ), including complex ones, and their features. Select, justify and use approaches, including some at the forefront of the subject/ profession. Evaluate the approaches and solutions.	1. identify and deal with complex problems related to aims and desired outcomes, identifying possibilities for originality or creativity e.g.. <ul style="list-style-type: none"> <li>• <i>identify the features of the problem, including aspects of risk</i></li> <li>• <i>select/use/adapt approaches, including those at the forefront of the subject/profession.</i></li> <li>• <i>evaluate approaches and solutions.</i></li> </ul>	1. identify and anticipate problems (which may re-define existing knowledge). Plan for their resolution and implement those plans, being innovator and taking a lead in the formulation of solutions. Continually monitor and evaluate progress and adjust strategies in the light of unforeseen difficulties/ new problems.
<b>Gathering and using information</b>  2. for a given purpose: access specified sources, <ul style="list-style-type: none"> <li>• use and explain information/data,</li> <li>• check the relevance and accuracy of the information</li> </ul>	2. for a given purpose: <ul style="list-style-type: none"> <li>• access specified sources,</li> <li>• use and explain information/data,</li> <li>• evaluate appropriateness of the information</li> </ul>	2. for a suggested purpose (e.g. <i>course/professional/work/career related</i> ): <ul style="list-style-type: none"> <li>• identify, access, use and explain information/data which is relevant for a purpose.</li> <li>• evaluate the sources and the information/data.</li> </ul>	2. for a purpose(e.g. <i>course/ professional/career related</i> );: <ul style="list-style-type: none"> <li>• identify, access, select, use and comment on information/ data which is relevant for the purpose,</li> <li>• include current research/academic publications/appropriate primary sources.</li> <li>• evaluate the sources and the information/data.</li> </ul>	2. to enable the achievement of aims and desired outcomes: <ul style="list-style-type: none"> <li>• identify/access /select/ use/ collect/evaluate information/data.</li> <li>• draw heavily on current research and academic publications and appropriate primary sources.</li> <li>• evaluate the sources, collection methods and the information/data</li> </ul>	2 to enable the achievement of aims and desired outcomes: <ul style="list-style-type: none"> <li>• identify/access /select/ use/ collect/evaluate information/data</li> <li>• use current research and academic publications</li> <li>• identify new sources of information</li> <li>• use primary sources.</li> <li>• evaluate sources, collection methods and the information/data</li> </ul>

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<p><b>Communication</b></p> <p>3. accurately present ideas/information/arguments/results</p> <ul style="list-style-type: none"> <li>• in a specified written, verbal or visual format</li> <li>• for a given purpose, topic, situation and audience.</li> </ul>	<p>3. to enable understanding, communicate ideas/ information/arguments/results</p> <ul style="list-style-type: none"> <li>• in a specified written, verbal or visual format</li> <li>• for a given purpose, topic, situation and audience.</li> </ul>	<p>3. to enable understanding by academic, specialist and non-specialist audiences communicate ideas/information/arguments/results</p> <ul style="list-style-type: none"> <li>• in a variety of specified written, verbal or visual formats.</li> <li>• appropriately for a purpose, topic and situation.</li> </ul>	<p>3. to enable understanding and engagement,</p> <ul style="list-style-type: none"> <li>• select and use a format and style</li> <li>• to communicate ideas/information/arguments/ results</li> <li>• when faced with a variety of purposes, topics, situations and audiences.</li> </ul>	<p>3. to enhance understanding and engagement by academic/ professional audiences</p> <ul style="list-style-type: none"> <li>• identify desired communication outcomes</li> <li>• adapt the appropriate format and select and use a style to meet those outcomes.</li> </ul>	<p>3. communicate aims, processes and outcomes to a publishable standard.</p>
<p><b>Information Technology</b></p> <p>4. carry out specified IT applications and strategies for a restricted range of given purposes and tasks, with guidance.</p>	<p>4. use specified IT applications and strategies for given purposes and tasks.</p>	<p>4. use specified IT applications and strategies, as appropriate for various purposes and tasks.</p>	<p>4 select, use and evaluate IT applications and strategies which are appropriate for various purposes and tasks.</p>	<p>4. identify, select, plan for (including resource planning), use and evaluate IT applications and strategies to enhance the achievement of aims and desired outcomes.</p>	<p>4. identify, select, plan for (including resource planning), use and evaluate IT applications and strategies to enhance the achievement of aims and desired outcomes.</p>

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<p><b>Working with Numbers</b></p> <p>5. for given tasks, carry out restricted and specified numerical approaches and techniques to process/explain/evaluate data, with guidance.</p>	<p>5. for given tasks, use specified numerical approaches and techniques to process/explain/evaluate data.</p>	<p>5. use specified numerical approaches and techniques to process/explain/evaluate data.</p>	<p>5 select numerical approaches and techniques, which are appropriate for purposes and tasks, and use them to process/explain/evaluate data.</p>	<p>5. where appropriate, identify, select, plan for (including resource planning), use and evaluate numerical approaches and techniques to enhance the achievement of aims and desired outcomes.</p>	<p>5. where appropriate, identify, select, plan for (including resource planning), use and evaluate numerical approaches and techniques to enhance the achievement of aims and desired outcomes.</p>
<p><b>Working with Others</b></p> <p>6. operate with others in restricted and given situations, to meet given objectives and own responsibilities, using given approaches/ techniques</p>	<p>6. operate with others in given situations, to meet specified objectives and own responsibilities, using specified approaches/techniques.</p>	<p>6. operate with others in various situations (e.g. <i>course/ professional/ work/career related</i>), to meet specified objectives and own responsibilities, using appropriate approaches/ techniques.</p>	<p>6. identify objectives and own responsibilities in operating with others (e.g. <i>course/professional/ work/career related</i>), use and evaluate strategies to meet them.</p>	<p>6. identify who and how others may help in achieving aims and desired outcomes and put plans into action, e.g.</p> <ul style="list-style-type: none"> <li>• <i>clarify roles and responsibilities</i></li> <li>• <i>agree resources and support</i></li> <li>• <i>identify and use ethical working practices</i></li> <li>• <i>use others to challenge thinking/explore alternatives/obtain information/data/obtain advice.</i></li> </ul>	<p>6. identify ways to make professional use of others to achieve aims and desired outcomes and put plans into action. Continually refer and respond appropriately to peer expectations.</p>

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<p><b>Reflection</b></p> <p>7. reflect on own strengths, limitations and performance,</p> <ul style="list-style-type: none"> <li>• in given situations using given approaches/techniques, including feedback.</li> </ul>	<p>7. reflect on own strengths, limitations and performance,</p> <ul style="list-style-type: none"> <li>• in given situations using suggested approaches/techniques, including feedback.</li> </ul>	<p>7. reflect on and evaluate own strengths, limitations and performance and identify the impact of them in relation to:</p> <ul style="list-style-type: none"> <li>• own knowledge</li> <li>• learning methods</li> <li>• values/beliefs/ethics</li> <li>• own employability</li> </ul> <p>Seek, evaluate and use feedback.</p>	<p>7. reflect and evaluate own strengths, limitations and performance and the impact of them in relation to:</p> <ul style="list-style-type: none"> <li>• the Award's Learning Outcomes</li> <li>• own knowledge</li> <li>• learning methods</li> <li>• values/beliefs/ethics</li> <li>• own employability</li> </ul> <p>Seek, evaluate and use feedback.</p>	<p>7. reflect on and evaluate factors which have an impact on the achievement of the aims and desired outcomes, e.g.</p> <ul style="list-style-type: none"> <li>• <i>own performance</i></li> <li>• <i>contextual factors</i></li> <li>• <i>processes, outcomes and findings</i></li> <li>• <i>own skills and attributes.</i></li> </ul> <p>Seek, evaluate and use feedback.</p>	<p>7. continually reflect in and on action, evaluating factors which impact on the study, its aims and desired outcomes. Seek, evaluate and use feedback.</p>

Level 3 In relation to the subject/work area, learners will:	Level 4 In relation to the subject/work area, learners will:	Level 5 In relation to the subject/professional/work area, learners will:	Level 6 In relation to the subject/professional area, learners will:	Level 7 In relation to the specialised area of study, learners will:	Level 8 In relation to the specialised area of study, learners will:
<p><b>Setting goals</b></p> <p>8. accept responsibility for implementing plans for given targets and tasks.</p>	<p>8. take responsibility for setting targets and implementing plans for specified tasks.</p>	<p>8. take responsibility for setting targets, initiating and implementing plans and activities for various specified contexts or goals (e.g. <i>course/professional/work/career related</i>).</p>	<p>8. take responsibility for identifying goals, setting targets, initiating and implementing plans and activities (e.g. <i>course/professional/career related</i>),.</p>	<p>8. take full responsibly for initiating, identifying, amending and achieving aims and desired outcomes, using new skills/ techniques as required e.g..</p> <ul style="list-style-type: none"> <li>• <i>implement plans and activities, within a timescale</i></li> <li>• <i>monitor and review progress, making appropriate adaptations and amendments</i></li> </ul> <p>Identify opportunities to improve. Use strategies appropriate for self and the subject/profession to advance own knowledge and provide a basis for Continuing Professional Development.</p>	<p>8. take full responsibility for a research project from inception to completion. Operate autonomously, identifying and using strategies/techniques/ skills (including new ones) appropriate for self and the study, to advance knowledge and provide a basis for own Continuing Professional Development.</p>