

# Developing the Assessment Strategy and Rubric Guide

This development guide is reviewed in a collaborative learning workshop session with GMIT Teaching and Learning Office. The guide explores four key areas in developing and aligning your assessment strategy to achieve student success. The sections include:

## Introduction to Assessment

Section 1: Aligning Assessments with the Learning Outcomes	p. 3
Section 2: Designing the Assessment Rubric and Sample Rubrics	p. 4
Section 3: Writing Learning Outcomes & the Assessment Strategy	p. 13
Section 4: Marking Scheme Guide	p. 22

[Appendix 1](#) Choosing the verb + matching learning activities – LO’s Design Resource

[Appendix 2](#) Sample Learning Outcomes at Programme and Module Level

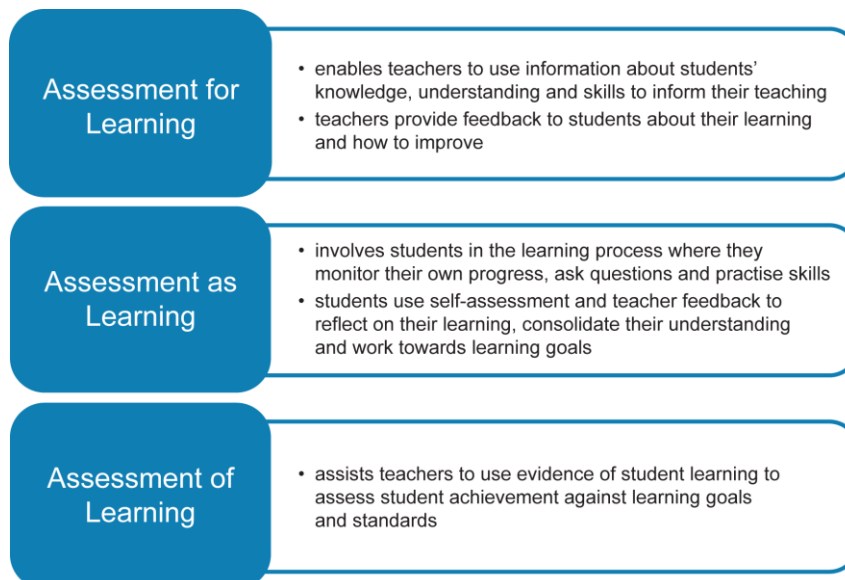
[Appendix 3](#) QQI – National Framework of Qualifications – Grid of Level of Indicators

## Introduction to Assessment

**Assessment is a key function of lecturers. Assessment tasks are developed through constructive alignment of learning outcomes, learning and teaching strategies and assessment.**

1. Assessment procedures are fair, consistent and fit for purpose, and subject to regular review.
2. Assessment tasks are clear, accompanied by grading schemes and communicated to students appropriately.
3. Assessment procedures are flexible to meet individual circumstances within the limits of the Institute’s assessment policies i.e., they are capable of reasonable accommodation.

### Understanding assessment for, as and of Learning:



### Why do we assess?

- To determine that the intended learning outcomes of the course are being achieved.
- To provide feedback to students on their learning, enabling them to improve their performance.
- To motivate students to undertake appropriate work.
- To support and guide learning.
- To describe student attainment, informing decisions on progression and awards.
- To demonstrate that appropriate standards are being maintained.
- To evaluate the effectiveness of teaching.

### Assessment Tip!

#### How much time should be spent on assessment?

As lecturers and course designers we should make reasoned and conscious decisions on how much time we should spend setting and correcting assessment and giving feedback. Obviously, with economies of time, assessment needs to be efficient as well as productive, and should achieve its various purposes (returning reliable marks, giving feedback, generating appropriate student activity, and motivating learning) in a way that makes best use of staff and student time, and other resources. Assessment can consume a large amount of staff and student resources, so it needs to yield a high return in order to be efficient.

#### Involve others in the assessment process

Traditionally, the role of the assessor usually falls to the lecturer/tutor. However, it is often worthwhile to consider involving others in the assessment process. For example, Industry experts can be a valuable resource when creating and marking assessments. Or consider involving students in their own assessment. Effective and appropriate use of involving others in the assessment practice can enhance the learning experience, enrich the teaching experience, and reduce the marking burden placed on staff. It worth remembering that giving informed, meaningful feedback can be an effective use of class teaching time. One way of increasing the efficiency of assessment is to allow students play a role in assessing themselves or each other. This is called self-assessment or peer assessment, two sources of assessment that can be used with a variety of methods of assessment.

Source: O'Farrell, C. (2015), *Assessment Toolkit*, TCD.

### Assessment Terms - the vocabulary of assessment.

**Assessment** is any process that aims to judge the extent of students' learning. **Feedback** is any information that a learner receives as a result of assessment, it may be written or oral, stated or implied.

- **Learning outcome** – a description of the learning to be achieved.
- **Continuous assessment** - assessment that takes place at more than one point in a course.
- **Final assessment** - assessment that takes place at the end of a course.
- **Validity** - a valid assessment is one that measures what it claims to measure (and what is important to measure).
- **Reliability** - reliable assessments are ones where the same marker reaches the same conclusion on different occasions and different markers reach the same conclusion when presented with similar evidence.
- **Formative assessment** - assessment designed to provide information (feedback) to students so that they can improve their work.

- **Summative assessment** - assessment that counts towards or constitutes a final grade or qualification.
- **Norm-referenced** – assessment that measures learner performance against the standard of the group rather than against a pre-determined standard, assessment that ranks students on their spread about the norm (or results from a test graded and ranked).
- **Criterion referenced** - assessment that assesses how far students meet or match criteria.
- **Peer assessment** – learners make judgements about one another’s work. This requires them to give and/or receive feedback.
- **Self-assessment** – assessment where the student makes judgements on their own learning.

Adapted from Freeman, R. and Lewis, R. (1998) *Planning and Implementing Assessment*, London, Kogan Page, pp. 314-317.

### Key documents to guide you on assessment in GMIT include:

- GMIT Assessment Guide (September, 2019)  
<https://galwaymayoinstitute.sharepoint.com/sites/TLO/Shared%20Documents/Assessment%20Guidelines%20%20Nov2019.pdf>
- GMIT Online Assessment Guide (November, 2020)  
<https://galwaymayoinstitute.sharepoint.com/sites/TLO/Shared%20Documents/T&LOOnlineExamGuide2020FinalNov11.pdf>

## Section 1: Aligning Assessments with the Learning Outcomes

Remember when writing learning outcomes check for alignment and not to over assess! A sample of a mapping table to include in the student module handbook/online signposting materials is presented below. This example comes from the level 9, year-long Certificate in T&L (30 ECTS). Module learning outcomes are aligned to the assessments.

On successful completion of the module the learner will be able to	LO1 Develop, deliver and review lessons in the context of microteaching techniques.	LO2 Effectively apply and critique a suite of educational technology tools.	LO3 Critically assess key educational theories and their application to teaching.	LO4 Develop a web-based teaching portfolio tool (e-Portfolio) in the context of teaching practice.	LO5 Demonstrate research-based, inquiry-based teaching practice, including competence in problem-based learning (PBL).	LO6 Design and evaluate effective and innovative assessment strategies.	LO7 Critically evaluate the role of an educator in the context of Higher Level Education.	LO8 Demonstrate the skill of reflective practice.
Assessment Pack 1: Teaching lesson plans and reflections, peer observations, re-usable digital learning object.	√	√			√	√		√
Assessment Pack 2: Teaching and Learning E-Portfolio (all outputs showcased)		√		√		√		
Assessment Pack 3: Academic Paper and Teaching Philosophy			√		√		√	
Assessment Pack 4: Critical Reflections			√					√

## Section 2: Designing the Assessment Rubric and Sample Rubrics

### 2.1 Peer Assessment Guide e.g. for a Teaching Observation

**Think about how you might adapt this rubric for a peer observation assessment in your discipline, where the students are asked to peer assess a collection of presentations or projects on various topics.**

Name \_\_\_\_\_ Programme/Course \_\_\_\_\_

Date \_\_\_\_\_ Duration of teaching session \_\_\_\_\_

Peer Reviewer \_\_\_\_\_

Criteria	Peer Reviewer Comments
<p><b>Starting the teaching session</b></p> <p>Peer Reviewer Ticks box Yes✓ or No ×</p> <p>Welcomes students <input type="checkbox"/></p> <p>round of news items <input type="checkbox"/></p> <p>checks what students are working on <input type="checkbox"/></p> <p>asks for summary of key issues covered <input type="checkbox"/></p> <p>identifies topics for discussion <input type="checkbox"/></p> <p>learning outcomes for the session communicated with group <input type="checkbox"/></p>	
<p><b>Group Interaction/ Student Engagement</b></p> <p>Small group or pair work <input type="checkbox"/></p> <p>uses students' names <input type="checkbox"/></p> <p>encourages participation <input type="checkbox"/></p> <p>monitors each group's progress &amp; understanding <input type="checkbox"/></p> <p>encourages students to work in pairs to resolve problems <input type="checkbox"/></p> <p>co-design of a learning activity or assessment with the student group <input type="checkbox"/></p> <p>use of classroom App/ TEL tool <input type="checkbox"/></p>	
<p><b>Gathering feedback</b></p> <p>Ensures sufficient time left for feedback <input type="checkbox"/></p> <p>manages the feedback process <input type="checkbox"/></p> <p>involves all groups/pairs <input type="checkbox"/></p> <p>encourages students to use whiteboard or flip charts/ post its / padlet board / classroom Apps <input type="checkbox"/></p>	

<p>ensures key points/questions recorded <input type="checkbox"/></p> <p>uses positive reinforcement <input type="checkbox"/></p>	
<p><b>Knowledge Transfer</b></p> <p>Teacher demonstration <input type="checkbox"/></p> <p>explanations <input type="checkbox"/></p> <p>Redirects questions <input type="checkbox"/></p> <p>waits for responses <input type="checkbox"/></p> <p>asks open-ended questions <input type="checkbox"/></p> <p>probes, seeks clarification/examples, as required <input type="checkbox"/></p>	
<p><b>Ending teaching session</b></p> <p>Summarises session <input type="checkbox"/></p> <p>gives &amp; receives feedback <input type="checkbox"/></p> <p>requests ideas for future lessons/ session(s) <input type="checkbox"/></p> <p>requests ideas for assessment and evaluation <input type="checkbox"/></p> <p>thanks students <input type="checkbox"/></p>	
<p><b>General</b></p> <p>Supportive <input type="checkbox"/></p> <p>encouraging <input type="checkbox"/></p> <p>smiles <input type="checkbox"/></p> <p>evidence of planning <input type="checkbox"/></p> <p>uses experience &amp; offers appropriate advice <input type="checkbox"/></p> <p>maintains balance of leadership &amp; empathy with students <input type="checkbox"/></p> <p>study skills advice integrated <input type="checkbox"/></p> <p>references/URLs shared <input type="checkbox"/></p> <p>use of VLE <input type="checkbox"/></p> <p>use of classroom Apps <input type="checkbox"/></p>	
<p><b>Overall Comments/ Learning Reflections</b></p>	

## 2.2 Digital Learning Resource Sample Rubric

Name of Presenter/Developer:

Module Leader Reviewer:

Please rate the following components using this scale.

(Amend to suit your discipline/assessment task)

1-2 Key digital elements missing from the tool design.

3-4 Task achieved and areas to work on (outlined in comments).

5-6 A high quality demonstration of digital resource/tool (few if any recommendations).

Organisation of content 1 2 3 4 5 6

Comment:

Clarity of presentation 1 2 3 4 5 6

Comment:

Communication (voice, eye contact, etc.) 1 2 3 4 5 6

Comment:

Interactions with students/audience 1 2 3 4 5 6

Comment:

**Use of aids, whiteboard, or VLE, classroom APPS, devices (visual, audio, demonstrations) 1 2 3 4 5 6**

**Comment:**

**Overall Effectiveness 1 2 3 4 5 6**

**General Comments:**



## 2.3 E-Portfolio Rubric

### Eportfolio Assessment Rubric

<i>Weight criteria as appropriate</i>	<b>Not achieved</b>	<b>Acceptable</b>	<b>Proficient</b>	<b>Exemplary</b>
<b>Subject Knowledge Relevancy ence of argument and artefacts</b>	Does not address topic, context or key points. Most ideas are underdeveloped, unoriginal, or lack relevancy/critical thought. Artefacts do not support argument or are not included	Content indicates thinking and reasoning applied with original thought on a few ideas. Not all key points included or fully developed. Some artefacts included which support argument	Content indicates original thinking and develops ideas with sufficient evidence. Key points covered. Clear argument supported by appropriate, relevant artefacts	Content indicates synthesis of ideas, indepth analysis and evidences original thought and support for the topic. Thoughtful artefacts selected that advance main argument.
<b>Creativity with Multimedia</b>	No inclusion of audio/video, or graphics or photos, audio or video are distracting/no relevant to the content of the portfolio.	Audio/video/graphics/ photographs are included but used without purpose or design in mind. Some artefacts may not function correctly.	The use of audio/video/graphics/ photographs are appropriate and contribute to understanding concepts, ideas and relationship. The artefacts enhance the written material and create interest.	Innovative use of audio/video/graphics/ photographs is integrated seamlessly into several different artefacts. They effectively enhance understanding of concepts, ideas and relationships, and create interest.
<b>Appropriate Academic Conventions Referencing Copyright Spelling &amp; Grammar</b>	Poor or incorrect use of required referencing scheme. Multiple spelling or grammatical errors. Copyright references not included for artefacts.	Inaccurate use of required referencing scheme. Some spelling or grammatical errors. Some care has been given to copyright and fair usage of images/artefacts.	Largely accurate use of required referencing scheme. Few spelling or grammatical errors. Copyright and fair usage of images/artefacts noted.	Excellent grammar, spelling, syntax and punctuation. Content fully supported by reference to relevant, up to date, and accurate referencing. Copyright and fair usage issues well considered
<b>Usability &amp; Navigation</b>	Organisation and structure is confusing. The navigation links are poor or missing making navigation difficult. Many external hyperlinks do not link to the appropriate website or resource. Structure of page/s is inappropriate for purpose.	Some navigation links included to provide structure. Some external hyperlinks do not connect to the appropriate website or resource. Structure of page/s does not always support purpose.	Organisation, structure and flow of the portfolio page/s is clear. Navigation links function well. Most external hyperlinks link to appropriate websites or resources.	Well organised page/s and structure facilitates the readers' accessibility and navigation to the content. Navigation links seamlessly to other pages and external hyperlinks present and working to websites and resources.

<b>Level of Reflection</b>	Reflective writing is limited to description or missing and does not explain growth or include goals for continued learning	Reflective writing is present and occasionally includes more than description by connecting ideas or artefacts together. Some reflective writing demonstrates relevancy of artefacts in the e-portfolio. A few of the reflections explain growth and include goals for continued learning.	Reflective writing often make connections, explains importance, or projects into the future, but not consistently so. Most of the reflections describe relevancy of artefacts in the eportfolio. Most of the reflections explain growth and include goals for continued learning.	Reflections are insightful and work together to consistently synthesize learning experiences and demonstrate critical thinking. All reflections clearly describe relevancy of artefacts in the eportfolio and clearly explain how the artefact demonstrates growth, competencies, accomplishments, and include goals for continued learning
<b>Design &amp; Originality</b>	Design choices are simplistic, inappropriate or disorganised. Colour, font, space, and layout are haphazard and distract from the message	Design choices are often appropriate, but some choices of colour, font, space, or layout are ineffective in supporting the message or inconsistent	Design choices are consistently appropriate and support the message. Choices are well thought out and creative/attractive	Design choices are consistently appropriate, enhance readability and support the message, These choices are consistently sophisticated and original/creative/attractive

***Full credit and sincere thanks to participants at the Eportfolio Unconference (Dublin, 2018) for their collaborative contributions to the development of this eportfolio assessment rubric.***



Eportfolio Assessment Rubric by Lisa Donaldson is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

## 2.4 Sample Assessment Criteria/Rubric for a literature review

Criteria and qualities	Poor	Good	Excellent	Point Value
<b>Introducing the Problem statement</b>	Neither implicit nor explicit reference is made to the topic that is to be examined.	Readers are aware of the overall problem, challenge, or topic that is to be examined.	The topic is introduced, and groundwork is laid as to the direction of the report.	Up to 10 points
<b>Body: Flow of the report</b>	The report appears to have no direction, with subtopics appearing disjointed.	There is a basic flow from one section to the next, but not all sections or paragraphs follow in a natural or logical order.	The report goes from general ideas to specific conclusions. Transitions tie sections together, as well as adjacent paragraphs.	Up to 20 points
<b>Coverage of content</b>	Major sections of pertinent content have been omitted or greatly run-on. The topic is of little significance to the educational/training field.	All major sections of the pertinent content are included, but not covered in as much depth, or as explicit, as expected. Significance to educational/training field is evident.	The appropriate content in consideration is covered in depth without being redundant. Sources are cited when specific statements are made. Significance is unquestionable. The report is between 1,000 and 2,000 words.	Up to 20 points
<b>Clarity of writing and writing technique</b>	It is hard to know what the writer is trying to express. Writing is convoluted. Misspelled words, incorrect grammar, and improper punctuation are evident.	Writing is generally clear, but unnecessary words are occasionally used. Meaning is sometimes hidden. Paragraph or sentence structure is too repetitive.	Writing is crisp, clear, and succinct. The writer incorporates the active voice when appropriate. The use of pronouns, modifiers, parallel construction, and non-sexist language are appropriate.	Up to 20 points
<b>Conclusion: A synthesis of ideas and hypothesis or research question</b>	There is no indication the author tried to synthesize the information or make a conclusion based on the literature under review. No hypothesis or research question is provided.	The author provides concluding remarks that show an analysis and synthesis of ideas occurred. Some of the conclusions, however, were not supported in the body of the report. The hypothesis or research question is stated.	The author was able to make succinct and precise conclusions based on the review. Insights into the problem are appropriate. Conclusions and the hypothesis or research question are strongly supported in the report.	Up to 10 points
<b>Citations/References: Proper APA format</b>	Citations for statements included in the report were not present, or references which were included were not found in the text.	Citations within the body of the report and a corresponding reference list were presented. Some formatting problems exist, or components were missing.	All needed citations were included in the report. References matched the citations, and all were encoded in APA format.	Up to 10 points

Source: <http://edweb.sdsu.edu/>

## 2.5 Sample Assessment Rubric for a Report/Paper

Participant Name \_\_\_\_\_

Assignment 1	Well achieved	Achieved	Not Achieved
<b>Research Method &amp; Plan</b>	Research methods and plan are comprehensive and clearly outlined and evidence of learning.	Research methods and plan are outlined and evidence of learning.	Research methods and plan are not stated.
<b>Findings and Feedback</b>	Well planned and evidence of analysis, reflection and feedback provided including excellent use of tools.	Good plan and evidence of analysis, reflection and feedback provided.	Poor planning and feedback. No evidence of analysis provided.
<b>Literature Review</b>	Outcome of the literature review evident and critical review and reflection.	Outcome of literature review evident clear and suitable.	Outcome not clear. Literature review either not submitted or not appropriate.
<b>Argument</b>	Argument clear throughout in relation to tasks set.	Key points developed from reading and applied to practice in assessment.	Lack of reference to mentoring practice
<b>Academic Writing</b>	Well-structured paper. Paper is required length.	Paper has a clear structure.	Paper lacks structure.
<ul style="list-style-type: none"> <li>• <b>Structure</b></li> <li>• <b>Length of paper</b></li> <li>• <b>Referencing</b></li> </ul>	Clear references in correct format, references cited well	Paper is required length References satisfactory, use of citation	Paper is too short or too long. Referencing not in correct format, poor citation of references
<b>Presentation</b>	Adheres to presentation guidelines in module handbook	Conforms to presentation guidelines in module handbook	Paper does not conform to presentation guidelines in module handbook
<b>Overall comments/feedback</b>			

## 2.6 Sample Assessment Student Presentation Feedback Sheet

<b>Presentation title</b>			
Grade Criterion	Well achieved	Achieved	Not achieved
<b>Presentation &amp; style</b>			
Quality of presentation			
Presentation skills			
Use of presentation software			
<b>Content &amp; knowledge</b>			
Presentation topic			
Theory			
Evidence of reading			
Case example			
References			
Ideas/innovation			
<b>Thinking/ analysis/conclusions</b>			
Learning about the topic			
<b>Overall Comment</b>			

## Section 3: Writing Learning Outcomes & the Assessment Strategy

### 3.1 Learning Outcomes Quick Guide

#### Definition

Learning outcomes are clear statements of learning achievements for students, stating what it is the student should be able to demonstrate at the end of a period of learning. In general learning outcomes must be capable of being assessed and easily understood by the student.

#### Format

On successful completion of this programme/module the learner will/should be able to:

Learning outcome 1

Learning outcome 2

Learning outcome 3

Etc. (4 – 8 max.)

*Learning Outcome – action verb + phrase*

*(analyse) + (the active ingredients of ...)*

**See Appendix 1 for a listing of active verbs to consider under each learning domain.**

#### Guidelines

Learning outcomes should:

- Be general enough to describe essential learning.
- Be specific enough to be measurable.
- Clearly focus on the learner.
- Be easy to understand (from the student's perspective).
- Be clearly linked (aligned) to teaching and learning activities (see section 3).
- Be clearly aligned to assessment (see section 1).
- Be assessed at least once during a programme. Please note multiple learning outcomes can link to one assessment. It is not necessary to create an assessment for each learning outcome (see section 1).

#### Programme level

What should a graduate of this programme be able to do?

Bear in mind the general know-how of the discipline, generic and transferable skills.

#### Module level

What is the essential learning for this module?

Bear in mind the learning outcomes must link to the assessment strategy (see section 1). Think about how students will demonstrate their learning (see section 1).

## 3.2 Learning Outcome Checklist

A recommended six stage process for aligning learning outcomes:

1. Define intended **learning outcomes**.
2. Choose **teaching and learning activities** likely to facilitate the achievement of these outcomes (see section 3).
3. **Engage** students in these activities.
4. **Identify** appropriate assessment techniques to allow students to demonstrate achievement of learning outcomes (see section 1). Give Formative feedback to enable students to improve their learning.
5. **Evaluate** how well the cycle has worked
6. **Review and** refine learning outcomes, teaching and learning activities and assessment tools as appropriate (see checklist below, to help with this process).

A recommended checklist that can be used when designing or redesigning a module learning outcomes:

Checklist for writing learning outcomes for modules:	Yes/No
Have I begun each outcome with an active verb? Active? Clearly describing things that students will do?	
Have I avoided terms like <i>know, understand, learn, be familiar with, be exposed to, be acquainted with, be aware of and appreciate</i> ?	
Have I included learning outcomes across the range of levels of Bloom's Taxonomy?	
Are my outcomes observable and measurable - assessable; validly, reliably & economically of your time?	
Do all the outcomes fit within the aims and content of the module?	
Appropriate to the subject and level, and to students' goals?	
Attainable in module hours by most students who do the work?	
Understandable to students on the programme or other stakeholders and/ prospective students?	

Adapted from:

Kennedy, D. (2007) *Writing and Using Learning Outcomes*, UCC, Cork

Baume, D. (2009) *Writing and Using Good Learning Outcomes*, Leeds Metropolitan University, Leeds.

## 3.3 Writing Programme Learning Outcomes

Programme Learning Outcomes (PLOs) are statements of what the students should know and be able to do on completion of the programme. Granting of exemptions for prior learning will be made by comparing the accredited or experiential learning of the applicant with the learning outcomes, so it is important that they are clearly written at the appropriate level. Programme Learning Outcomes (PLOs) should be developed with reference to the relevant QQI award descriptors of the appropriate level available at <https://www.qqi.ie/Articles/Pages/Active-NFQ-Standards-for-HE.aspx> also see Appendix 3 presenting a generic grid guide of level of indicators in this document. The generic award standard applies, if there is not a more specific discipline award standard. In some instances, more than one award

standard may be relevant, for example for a multidisciplinary programme. Some programmes will also need to consider the requirements of Professional Bodies.

- All PLOs commence with '***On successful completion of this programme the learner will/should be able to...***'. If building a course on Module Manager system in GMIT, this text is automatically inserted in the programme document.
- Similar to module learning outcomes discussed in 3.2 above, **commence each PLO with an action verb.**
- Note, PLOs are relatively broad as they refer to the entire programme. However, you should ensure that they are achievable by students.

Programme Learning Outcomes refer to the **knowledge, skill and competence the student** will have achieved, and are appropriate to the level of the award. Major awards are expected to include PLOs relating to:

- **Knowledge – breadth**
- **Knowledge – kind**
- **Know-how and skill – range**
- **Know-how and skill – selectivity**
- **Competence – context**
- **Competence – role**
- **Competence – learning to learn**
- **Competence – insight**

**NOTE: Minor Awards, Special Purpose Awards and Supplemental Awards may have fewer Programme Learning Outcomes than Major Awards, but they are expected to either:**

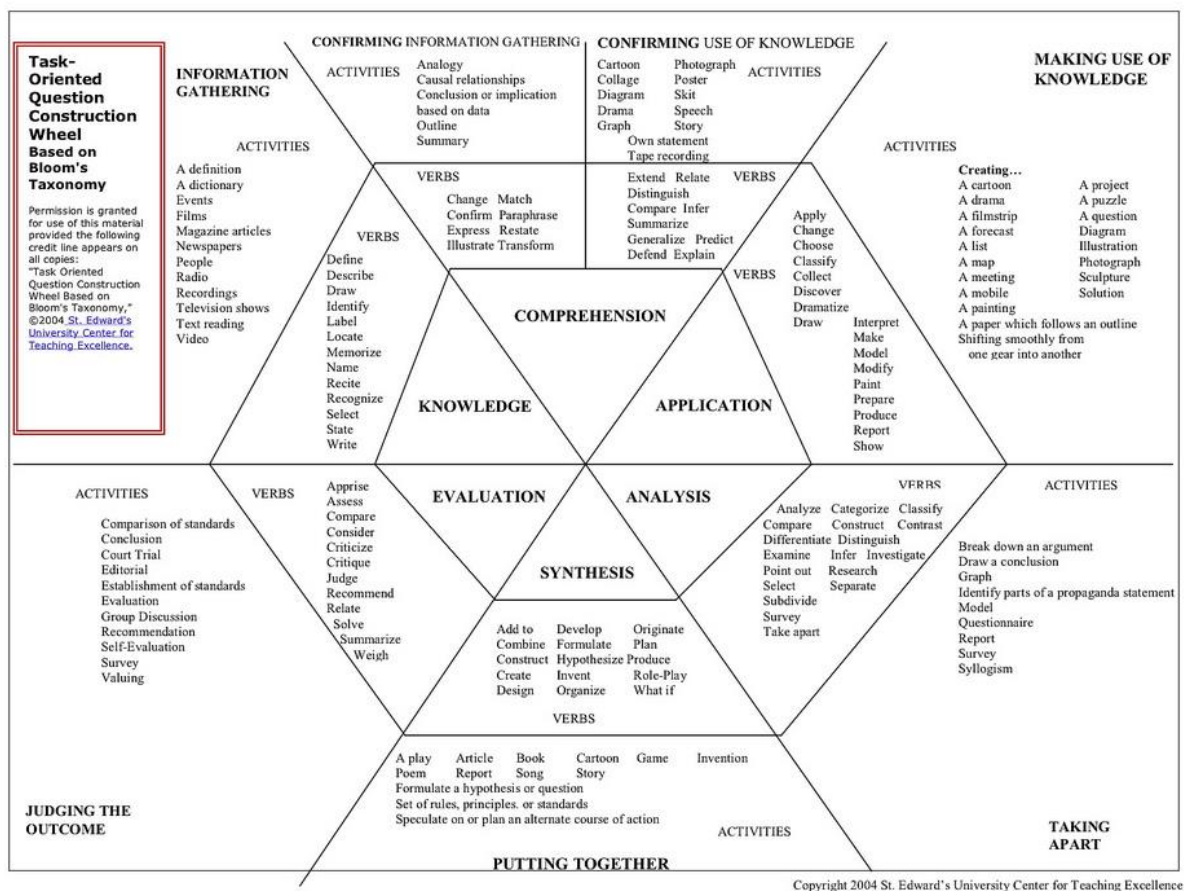
- **Include at least one of the sub-strands of each of knowledge, skill and competence or**
- **Incorporate all of the sub-strands for one of knowledge or skill or competence.**



### 3.4 Taxonomies

To aid the design of learning outcomes at module level, it is useful to consult learning taxonomies, such as those proposed by Bloom (1956), Biggs & Tang (2007), Biggs & Collis (1982) or Fink (2003). The taxonomies attempt to describe learning in terms of stages of development and can be useful when determining what we expect of our students. The construction wheel below developed at St. Edward’s University, is based on Bloom’s Taxonomy of learning objectives. **This guide was adapted by GMIT T&L Office as a design resource in a workshop setting (see Appendix 1).**

- Within the **central wheel** are listed levels of learning.
- Verbs that can be useful for writing learning outcomes are in the **middle wheel**.
- **The outer wheel** suggests activities that can be engaged in to help promote or foster such levels of learning.



There are other examples available online. One example aligning with technology enhanced learning tools is presented below, a iPadagogy wheel.

### App Selection Criteria

#### Remembering Criteria

**Remembering:** Apps that fit into the "remembering" stage improve the user's ability to define terms, identify facts, and recall and locate information. Many educational apps fall into the "remembering" phase of learning. They ask users to select an answer out of a line-up, find matches, and sequence content or input answers

#### Understanding Criteria

**Understanding:** Apps that fit into this "understanding" stage provide opportunities for students to explain ideas or concepts. Understanding apps step away from the selection of a "right" answer and introduce a more open-ended format for students to summarise content and translate meaning.

#### Applying Criteria

**Applying:** Apps that fit into the applying stage provide opportunities for students to demonstrate their ability to implement learned procedures and methods. They also highlight the ability to apply concepts in unfamiliar circumstances.

#### Analyzing Criteria

**Analyzing:** Apps that fit into the "analysing" stage improve the user's ability to differentiate between the relevant and irrelevant, determine relationships, and recognise the organisation of content.

#### Evaluating Criteria

**Evaluating:** Apps that fit into the "evaluating" stage improve the user's ability to judge material or methods based on criteria set by themselves or external sources. They help students judge content reliability, accuracy, quality, effectiveness, and reach informed decisions

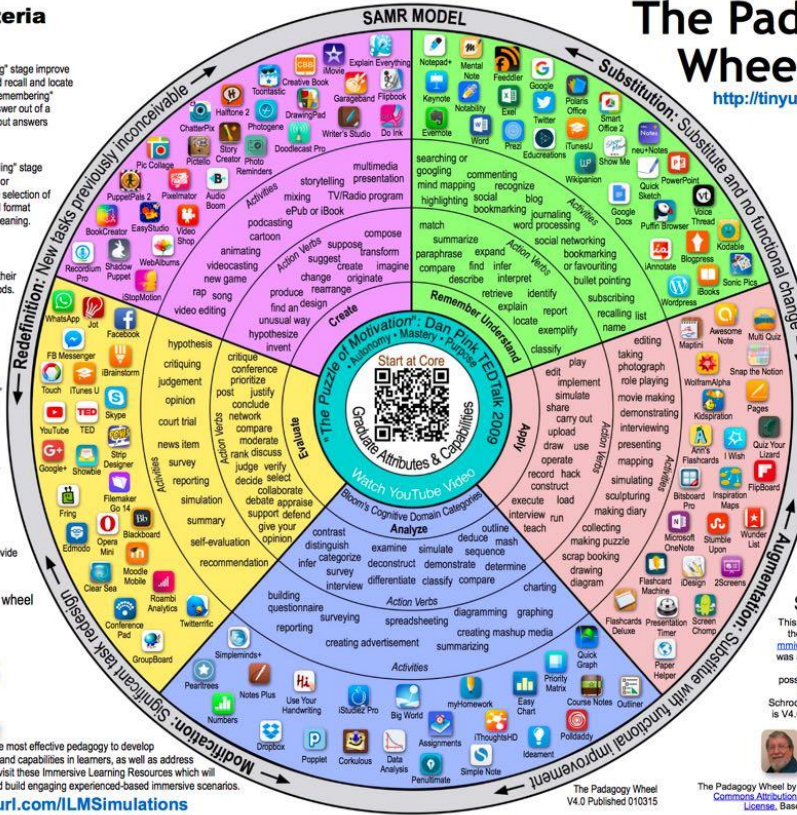
#### Creating Criteria

**Creating:** Apps that fit into the "creating" stage provide opportunities for students generate ideas, design plans, and produce products.

**Immersive Learning at the core of the wheel is the New Instructional Design**



**Simulations** are the most effective pedagogy to develop graduate attributes and capabilities in learners, as well as address motivation. Please visit these Immersive Learning Resources which will help you design and build engaging experiential-based immersive scenarios.  
<http://tinyurl.com/LMSimulations>



## The Padagogy Wheel V4.1

<http://tinyurl.com/posterV4>



**Getting the best use out of the Padagogy Wheel**  
Use it as a series of prompts or interconnected gears to check your teaching from planning to implementation

**The Attributes Gear:** This is the core of learning design. You must constantly revisit things like ethics, responsibility and citizenship. Ask yourself the question what will a graduate from this learning experience "look like" i.e. what is it that makes others see them as successful? Ask: How does everything I do support these attributes and capabilities?

**The Motivation Gear:** Ask yourself: How does everything I build and teach give the learner autonomy, mastery and purpose?

**The Bloom's Gear:** Helps you design learning objectives that achieve higher order thinking. Try to get at least one learning objective from each category. Only after this are you ready for technology enhancement.

**The Technology Gear:** Ask: How can this serve your pedagogy? Apps are only suggestions, look for better ones & combine more that one in a learning sequence.

**The SAMR Model Gear:** This is "how are you going to use the technologies you have chosen?"

I would like to thank **Tobias Rottmann** for the idea of the gears, **Tobias** is a teacher & works for the State Institute for School Development Baden-Württemberg (LS), Germany

Alan Carrington

**The Padagogy Wheel First Language Project:** 21 languages are planned for 2016. For the latest languages see [bit.ly/languageproject](http://bit.ly/languageproject)

### Standing on the Shoulders of Giants

This Taxonomy wheel, without the apps, was first discovered on the website of Paul Hopkin's educational consultancy website [mmbweb.org.uk](http://mmbweb.org.uk) That wheel was produced by Sharon Arley and was an adaption of Kathwohl and Anderson's (2001) adaption of Bloom (1956). The idea to further adapt it for the pedagogy possibilities with mobile devices, in particular the iPad, For V2.0 and V3.0 I have to acknowledge the creative work of Kathy Schrock on her website [BloominApps.com](http://BloominApps.com) For the major revision that is V4.0 I have to thank the team of ADEs who created APPTic the App Lists for Education Project which has now closed

Developed by Alan Carrington Designing Outcomes Adelaide South Australia Email: [alan@designingoutcomes.net](mailto:alan@designingoutcomes.net)

The Padagogy Wheel by Alan Carrington is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. Based on a work at <http://tinyurl.com/bloomstlog>





### 3.5 This checklist can be used when designing or redesigning a module or programme

**Assessment** is any process that aims to judge the extent of students' learning.

Checklist for assessment	Yes/No
1. Are the learning outcomes a description of the learning to be achieved?	
2. Does the module include continuous assessment – assessment that takes place at more than one point a module?	
3. Does the module have a final assessment – assessment that takes place at the end of a course?	
4. Is the assessment for the module valid – one that measures what it claims to measure?	
5. Is the assessment for the module reliable - one where the same marker reaches the same conclusion on different occasions and different markers reach the same conclusion when presented with similar evidence?	
6. Have opportunities to provide formative assessment been included - assessment designed to provide information to students on how they can improve their work?	
7. Is the module only assessed with a final summative assessment – assessment that counts towards or constitutes a final grade or qualification?	
8. Is the assessment criterion referenced – assessment that assesses how far students meet or match criteria?	
9. Has peer assessment been considered – learners making judgements about one another's work, requiring them to give and/or receive feedback?	
10. Has self-assessment been considered - assessment where the student makes judgements on their own learning	

**Adapted from Freeman, R. and Lewis, R. (1998) *Planning and Implementing Assessment*, London, Kogan Page, pp.314-317.**

### 3.6 Writing the Assessment Strategy for Module/Programme Documentation

The assessment strategy should be influenced by the programme’s learning outcomes and aim to demonstrate that students have achieved these. Similar to the module mapping activity discussed in Section 1, map your PLO’s to each module and the assessment strategy (see PLO Assessment Mapping Table sample below).

**PLO Assessment Mapping Table**

	PLO’s	Module name aligned to relevant PLO	Assessment Strategy
Knowledge – breadth			
Knowledge – kind			
Know-how and skill – range			
Know-how and skill – selectivity			
Competence – context			
Competence – role			
Competence – learning to learn			
Competence – insight			

**QQI’s Assessments and Standards (2013) state that a programme assessment strategy should:**

- Link a programme’s assessment instruments (summative and formative, including continuous assessment and repeat assessment) to the minimum (and any other) intended programme learning outcomes as well as intended module and stage learning outcomes.
- Describe and provide a rationale for the choice of assessment tasks, criteria and procedures. It should also address their fairness and consistency, specifically their validity, reliability and authenticity.
- Describe any special regulations (e.g. learners may be required to pass some key modules outright and not rely on pass by compensation).
- Regulate, build upon and integrate the module assessment strategies and (where used) stage assessment strategies.
- Provide contingent strategy for cases where learners claim exemption from modules, including for recognition of prior learning.

- Match the programme's assessment instruments to the requirements of the institutional grading system, particularly concerning the recording and combination of module grades/marks (i.e. provide clear criteria for grading/marking).
- Ensure that the programme's continuous assessment workload is appropriately balanced.
- Relate to the programme's teaching and learning strategy.

Review the variety of assessment options to consider in the [GMIT Alternative Assessment Guide](#) and the [Online Assessment Guide](#) and articulate the choices made in an assessment strategy description on the Module Manager builder. The range of assessments covered in both guides are applicable to online, blended or classroom-based programmes. A number of considerations and recommendations are outlined in both linked documents above including issues such as balance and including a variety of assessment. It is recommended an integrated approach to assessment is considered by the programme module leaders and the Programme Board and a discussion on the following points is recommended:

- An authentic – real-life approach to assessment.
- Formative and summative assessment – when and where this will occur in the programme cycle.
- Decisions on the continuous assessment approach, projects, practicals and final traditional examination (if required).
- Assessment methodologies including Rubric design and managing the feedback process with learners.
- Assessment of transferable skills throughout programme.
- How the issues of fairness and consistency are dealt with.
- The special regulations to consider e.g., must pass, non-compensatable modules.
- An Integrated assessment approach – linking modules and assessment components.
- What are the contingency strategies e.g., alternative to placements.
- The grading approach including group work and rubric design.
- Repeat assessment strategy.
- Continuous Assessment (CA) scheduling
- Communication of assessments and assessment criteria to students from the start of the programme/module.

It is recommended GMIT colleagues undertake the Learning Design Workshops with GMIT Teaching and Learning Office, to design the learning journey for each module. **The workshop will provide guidance on developing an assessment strategy and suite of learning activities to consider for your module/programme under six categories including: Investigation; Acquisition; Practice; Collaboration; Discussion; and Production (examples outlined in chart below).** Contact [TLO@gmit.ie](mailto:TLO@gmit.ie) to book a place.

# Learning categories and activities to consider building into your online/blended course

Learning types activities, **V**- Visible learning **A** - can be assessed (Formative or Summative)

## INVESTIGATION

Web search (forum, wiki) V  
OER resources (external)  
Literature reviews and critiques (forum/blog/wiki/RSS) V  
Field/lab observations (media/blog/wiki) V  
Action research V  
Authentic research / data analysis –write a paper V  
Lead a group project V

## ACQUISITION

Guided readings (library resources)  
OER resources (external)  
Podcast (media) V if students do it  
Webinars (virtual classroom) V  
Q&A forum (forum, where teachers answer student questions) V  
Video lectures (webcast),  
YouTube videos (external)  
Field/lab observations (media/blog/wiki) V  
MCQs -formative with automatic feedback V  
Portfolios (MyPortfolio) V

## PRACTICE

MCQs -formative with automatic feedback V/A  
Online role play (forum, virtual classroom)  
Reflective tasks –group or individual (forum) V/A  
Case studies (forum, lesson) V/A  
Rapid-fire exam questions (forum) V/A  
Advanced role play –you are the consultant etc. V

## COLLABORATION

Collaborative wiki -what do we know about ...? V/A  
Develop a shared resource library  
(database/glossary/wiki) V  
Social networking –participate (external) V  
Special interest groups -share on a topic (forum) V  
Mentor other learners V

## DISCUSSION

Interview an expert (forum/chat) V  
Webinars (virtual classroom) V  
Model answers/examples of previous work (forum)  
Analyse chat text (in course or uploaded) V  
Job/professional reflections (blog) V/A  
Group discussions on the topic, problem, reading  
(chat/blog/wiki) V/A  
Social networking –participate (external) V  
Reflective tasks –group or individual (forum) V/A  
Special interest groups -share on a topic (forum) V  
Lead a group project V/A

## PRODUCTION

Interview an expert (video/forum/chat) V  
Literature reviews and critiques (forum/blog/wiki/RSS)  
V/A  
MCQs -formative with automatic feedback V/A  
Develop a shared resource library  
(database/glossary/wiki) V/A  
Shows/demonstrates learning (displays, posters,  
presentations) V/A  
Portfolios (MyPortfolio) V/A  
Case studies (forum, lesson) V/A  
Summarisation tasks (upload texts –individual or group)  
V/A  
Rapid-fire exam questions (forum) V/A  
Concept mapping (external) V  
Create video of performance (media) V/A  
Audio commentary of performance (media) V/A  
Skype or virtual classroom 'viva' V/A  
Make and give a presentation (external) V/A  
Video blog (external) V/A  
Write a report (external) V/A  
Make an analysis (external) V/A  
Case studies V/A  
Advanced role play –you are the consultant etc. V  
Action plan for workplace V/A  
Action plan for further study V/A  
Authentic research / data analysis –write a paper V/A  
Prepare professional briefing V/A  
Create, make a case (study) V/A  
Create podcast (media) V/A  
Work assignment (blog/report) V/A  
Interview professional colleagues V/A  
Lead a group project V/A



@ABC\_LD  
UCL Digital Education

## Section 4: Marking Scheme Guide

### 4.1 This is a general marking scheme for the alpha grade system.

Grade	Percentage Band	Indicative Quality of Performance
A	80-100	<b>Excellent</b> Shows extensive and detailed knowledge of an area with a superior ability to organise, analyse and integrate ideas.
B+	70-79	<b>Very Good</b> Shows good detailed knowledge of an area with a more than adequate ability to organise and examine the material in a critical and constructive manner. Not as good as an A in some areas, e.g., has good ideas but not well-organised ones
B	60-69	<b>Good</b> Shows detailed knowledge but also contains omissions. Adequate ability to examine the material in a critical and constructive manner. Answers at this level should contain no errors.
B-	55-59	<b>Above Acceptable</b> Shows detailed knowledge but also contains omissions. Higher marks the fewer and more minor the omissions and lower marks for the more frequent and major ones. Answers should not contain major misconceptions and should be reasonably well structured.
C+	50-54	<b>Fair</b> Shows less detailed knowledge and not as well presented as the higher marks. Higher marks the fewer and more minor the omissions and lower marks for the more frequent and major ones, similarly misconceptions.
C	40-49	<b>Pass</b> Patchy knowledge poorly presented but showing some grasp of the area. Not as good as a C+ in most areas, with more frequent and major omissions and misconceptions.
D	35-39	<b>Poor</b> Minimally acceptable. Little knowledge of the area with major misconceptions, incomplete answers and/or poorly presented. However, shows some basic awareness of the area.
F	<35	<b>Fail</b> Inadequate. Mentions only one or two aspects of the area, major misconceptions and/or unacceptable presentation.



## 4.2 Assessment Lexicon

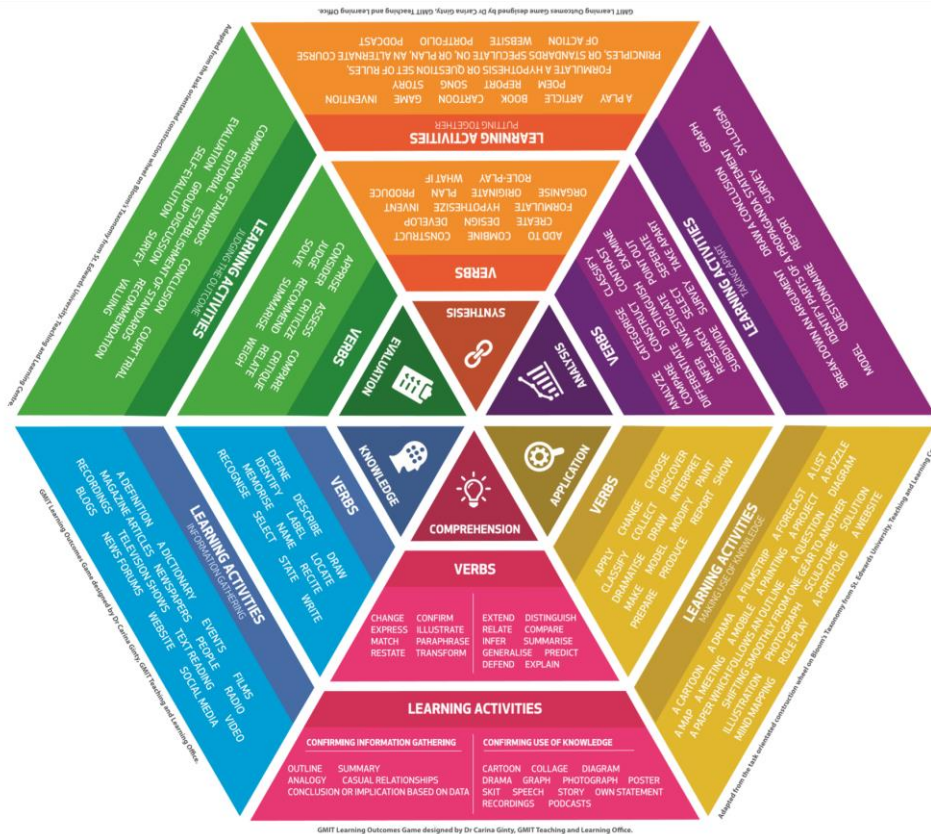
This is a useful tool for developing feedback on assignments/projects for both lecturers and students. It enables you to match the feedback to the grade you assign to the work.

QUALITY	Excellent		Good		Satisfactory		Unsatisfactory		
AWARD	1st		2:1	2.2	3rd		(Condoned Fail)	Fail	
GPV	4	3.5	3	2.75	2.5	2	2	1.5	0
ALPHA	A	B+	B	B-	C+	C	C	D	F
	sophisticated	refined	thoughtful	tested	established	unadventurous	derivative	partial	incomplete
	rigorous	finesse	accomplished	thorough	competent	capable	superficial	clumsy	deficient
	incisive	flair	skilful	accurate	conventional	inconsistent	initiated	unclear	unable
	scrupulous	dynamic	assured	grounded	clear	straightforward	threshold	inappropriate	absent
	penetrating	lucid	dextrous	consistent	appropriate	hesitant	sufficient	misconstrued	erroneous
	insightful	distinctive	analysed	coordinated	coherent	outline	adequate	unconsidered	wrong
	astute	inventive	critical	imaginative	reliable	charted	unimaginative	careless	mistaken
	innovative	comprehensive	decisive	independent	cautious	tentative	inaccurate	curtailed	formless
	perceptive	expert	convincing	synthesised	resolved	provisional	unresolved	faltering	unstructured
	challenging	perceptive	developed	effective	evidenced	uncertain	indistinct	basic	shapeless
	definitive	cogent	fluent	complete	summary	indicative	imprecise	undisciplined	
	authoritative	systematic	confident	logical	solid	interim	inexact	disorderly	
	commanding		robust	proficient	reliable			Vague	

Source: IADT, Induction Guidebook, 2015.

## Appendix 1 Choosing the verb + matching learning activities – LO's Design Resource

Resource view online [at this link](#) on GMIT TLO Sharepoint.



The Cognitive Domain develops six areas of intellectual skills that build sequentially from simple to complex behaviours. Bloom arranged them this way from lower to higher order thinking:

- Knowledge (recall of information)
- Comprehension (understanding of meaning)
- Application (use of concept)
- Analysis (deconstruction of concept)
- Synthesis (combination of information to create meaning)
- Evaluation (judgment of concept)

In time, this arrangement evolved into what we now call Bloom's Revised Taxonomy. Category names were changed from nouns to verbs, but are still ordered from simple to complex:

- Remembering
- Understanding
- Applying
- Analyzing
- Evaluating
- Creating

## Bloom's Taxonomy Action Verbs

Definitions	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
<b>Bloom's Definition</b>	Remember previously learned information.	Demonstrate an understanding of the facts.	Apply knowledge to actual situations.	Break down objects or ideas into simpler parts and find evidence to support generalizations.	Compile component ideas into a new whole or propose alternative solutions.	Make and defend judgments based on internal evidence or external criteria.
<b>Verbs</b>	<ul style="list-style-type: none"> <li>• Arrange</li> <li>• Define</li> <li>• Describe</li> <li>• Duplicate</li> <li>• Identify</li> <li>• Label</li> <li>• List</li> <li>• Match</li> <li>• Memorize</li> <li>• Name</li> <li>• Order</li> <li>• Outline</li> <li>• Recognize</li> <li>• Relate</li> <li>• Recall</li> <li>• Repeat</li> <li>• Reproduce</li> <li>• Select</li> <li>• State</li> </ul>	<ul style="list-style-type: none"> <li>• Classify</li> <li>• Convert</li> <li>• Defend</li> <li>• Describe</li> <li>• Discuss</li> <li>• Distinguish</li> <li>• Estimate</li> <li>• Explain</li> <li>• Express</li> <li>• Extend</li> <li>• Generalized</li> <li>• Give example(s)</li> <li>• Identify</li> <li>• Indicate</li> <li>• Infer</li> <li>• Locate</li> <li>• Paraphrase</li> <li>• Predict</li> <li>• Recognize</li> <li>• Rewrite</li> <li>• Review</li> <li>• Select</li> <li>• Summarize</li> <li>• Translate</li> </ul>	<ul style="list-style-type: none"> <li>• Apply</li> <li>• Change</li> <li>• Choose</li> <li>• Compute</li> <li>• Demonstrate</li> <li>• Discover</li> <li>• Dramatize</li> <li>• Employ</li> <li>• Illustrate</li> <li>• Interpret</li> <li>• Manipulate</li> <li>• Modify</li> <li>• Operate</li> <li>• Practice</li> <li>• Predict</li> <li>• Prepare</li> <li>• Produce</li> <li>• Relate</li> <li>• Schedule</li> <li>• Show</li> <li>• Sketch</li> <li>• Solve</li> <li>• Use</li> <li>• Write</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze</li> <li>• Appraise</li> <li>• Breakdown</li> <li>• Calculate</li> <li>• Categorize</li> <li>• Compare</li> <li>• Contrast</li> <li>• Criticize</li> <li>• Diagram</li> <li>• Differentiate</li> <li>• Discriminate</li> <li>• Distinguish</li> <li>• Examine</li> <li>• Experiment</li> <li>• Identify</li> <li>• Illustrate</li> <li>• Infer</li> <li>• Model</li> <li>• Outline</li> <li>• Point out</li> <li>• Question</li> <li>• Relate</li> <li>• Select</li> <li>• Separate</li> <li>• Subdivide</li> <li>• Test</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange</li> <li>• Assemble</li> <li>• Categorize</li> <li>• Collect</li> <li>• Combine</li> <li>• Comply</li> <li>• Compose</li> <li>• Construct</li> <li>• Create</li> <li>• Design</li> <li>• Develop</li> <li>• Devise</li> <li>• Explain</li> <li>• Formulate</li> <li>• Generate</li> <li>• Plan</li> <li>• Prepare</li> <li>• Rearrange</li> <li>• Reconstruct</li> <li>• Relate</li> <li>• Reorganize</li> <li>• Revise</li> <li>• Rewrite</li> <li>• Set up</li> <li>• Summarize</li> <li>• Synthesize</li> <li>• Tell</li> <li>• Write</li> </ul>	<ul style="list-style-type: none"> <li>• Appraise</li> <li>• Argue</li> <li>• Assess</li> <li>• Attach</li> <li>• Choose</li> <li>• Compare</li> <li>• Conclude</li> <li>• Contrast</li> <li>• Defend</li> <li>• Describe</li> <li>• Discriminate</li> <li>• Estimate</li> <li>• Evaluate</li> <li>• Explain</li> <li>• Judge</li> <li>• Justify</li> <li>• Interpret</li> <li>• Relate</li> <li>• Predict</li> <li>• Rate</li> <li>• Select</li> <li>• Summarize</li> <li>• Support</li> <li>• Value</li> </ul>

**Avoid the following vague or ambiguous words or phrases when constructing LO's. For example avoid the use of 'understand' as it is difficult to define and measure understanding.**

Words to Avoid	Phrases to Avoid
Believe	Appreciation for
Hear	Acquainted with
Realize	Adjusted to
Capacity	Awareness of
Intelligence	Capable of
Recognize	Comprehension of
Comprehend	Cognizant of
Know	Enjoyment of
See	Conscious of
Conceptualize	Familiar with
Listen	Interest in
Self-Actualize	Interested in
Memorize	Knowledge of
Think	Knowledgeable about
Experience	Understanding of
Perceive	
Understand	
Feel	

## Appendix 2 Sample Learning Outcomes (LOs) at Programme and Module Level

Sample LO's for a 5 ECTS module (Note: 4-5 LO's max. and 2.5 assessments max.)

### Sample Module Learning Outcomes

#### Level 7 Module: Year 1 BSc Health Science

Module Title: **Applied Anatomy and Physiology**

##### Learning Outcomes:

*On successful completion of this module the learner should be able to:*

1. Describe and illustrate the structure and organisation of the systems of the human body.
2. Illustrate and discuss the components of selected human systems.
3. Explain the interrelationship of each of these three systems to the functioning of the human body.
4. Perform and report on laboratory experiments which supplement the lecture material.

#### Level 8 Module: Year 2 Business Studies

Module Title: **Business & Information Management**

##### Learning Outcomes:

*On successful completion of this module the learner should be able to:*

1. Explain the principle concerns, roles and responsibilities of management.
2. Recognise and apply management techniques and strategies.
3. Evaluate organisational concepts and handle organisational challenges.
4. Direct group activities and projects using appropriate planning, organisational and motivational techniques.

### Sample Programme Learning Outcomes

#### Level 6 Programme: Higher Certificate Business Studies

On successful completion of the programme the learner should be able to:

<b>P01</b>	<b>Knowledge</b> - Breadth	Display a knowledge and understanding of the theory and concepts of general business subjects and related disciplines.
<b>P02</b>	<b>Knowledge</b> - Kind	Demonstrate knowledge of the core business disciplines and the interrelationships between them. Analyse and evaluate business situations as a complex web of political, social, cultural and economic issues.
<b>P03</b>	<b>Skill</b> - Range	Display a broad range of business skills and function effectively in a work situation at a supervisory/trainee management level. Gather, assemble, display and communicate information and data in structured business scenarios.
<b>P04</b>	<b>Skill</b> - Selectivity	Identify and evaluate solutions to business problems, explain the solutions and make judgements in response to qualitative and quantitative information. Apply general solutions to well-defined business problems.
<b>P05</b>	<b>Competence</b> - Context	Apply a range of skills in a variety of business contexts and exercise discernment in applying such skills and knowledge. Present information in written and oral form.
<b>P06</b>	<b>Competence</b> - Role	Contribute positively, both autonomously and as a member of a team, and work ethically and professionally.
<b>P07</b>	<b>Competence</b> - Learning to Learn	Reflect on and evaluate the quality of his/her own learning and achievements in the business workplace.
<b>P08</b>	<b>Competence</b> - Insight	Participate in business activities, with a clear sense of purpose, in a confident, motivated and responsible manner. Show awareness of the social, community, ethical and legal issues in a business context.

Source: Adapted by GMIT T&L Office, from Carlow IT, Writing Learning Outcomes Guide (2016).



## Appendix 3

### QQI, National Framework of Qualifications - Grid of Level of Indicators

[www.qqi.ie](http://www.qqi.ie) and [www.nfq-qqi.com/index.html](http://www.nfq-qqi.com/index.html)

	Level 6	Level 7	Level 8	Level 9	Level 10
Knowledge - Breadth	Specialised knowledge of a broad area	Specialised knowledge across a variety of areas	An understanding of the theory, concepts and methods pertaining to a field (or fields) of learning	A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning	A systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of a field of learning
Knowledge - Kind	Some theoretical concepts and abstract thinking, with significant underpinning theory	Recognition of limitations of current knowledge and familiarity with sources of new knowledge; integration of concepts across a variety of areas	Detailed knowledge and understanding in one or more specialised areas, some of it at the current boundaries of the field(s)	A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning	The creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality to satisfy review by peers
Know-how and Skill - Range	Demonstrate comprehensive range of specialised skills and tools	Demonstrate specialised technical, creative or conceptual skills and tools across an area of study	Demonstrate mastery of a complex and specialised area of skills and tools; use and modify advanced skills and tools to conduct closely guided research, professional or advanced technical activity	Demonstrate a range of standard and specialised research or equivalent tools and techniques of enquiry	Demonstrate a significant range of the principal skills, techniques, tools, practices and/or materials which are associated with a field of learning; develop new skills, techniques, tools, practices and/or materials
Know-how and Skill - Selectivity	Formulate responses to well-defined abstract problems	Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes	Exercise appropriate judgement in a number of complex planning, design, technical and/or management functions related to products, services, operations or processes, including resourcing	Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques	Respond to abstract problems that expand and redefine existing procedural knowledge
Competence - Context	Act in a range of varied and specific contexts involving creative and non-routine activities; transfer and apply theoretical concepts and/or technical or creative skills to a range of contexts	Utilise diagnostic and creative skills in a range of functions in a wide variety of contexts	Display mastery Use advanced skills to conduct research, or advanced technical or professional activity, accepting accountability for all related decision making; transfer and apply diagnostic and creative skills in a range of contexts	Act in a wide and often unpredictable variety of professional levels and ill defined contexts	Exercise personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent contexts
Competence - Role	Exercise substantial personal autonomy and often take responsibility for the work of others and/or for the allocation of resources; form, and function within, multiple, complex and heterogeneous groups	Accept accountability for determining and achieving personal and/or group outcomes; take significant or supervisory responsibility for the work of others in defined areas of work	Act effectively under guidance in a peer relationship with qualified practitioners; lead multiple, complex and heterogeneous groups	Take significant responsibility for the work of individuals and groups; lead and initiate activity	Communicate results of research and innovation to peers; engage in critical dialogue; lead and originate complex social processes
Competence - Learning to Learn	Learn to evaluate own learning and identify needs within a structured learning environment; assist others in identifying learning needs	Take initiative to identify and address learning needs and interact effectively in a learning group	Learn to act in variable and unfamiliar learning contexts; learn to manage learning tasks independently, professionally and ethically	Learn to self-evaluate and take responsibility for continuing academic/professional development	Learn to critique the broader implications of applying knowledge to particular contexts
Competence - Insight	Express an internalised, personal world view, reflecting engagement with others	Express an internalised, personal world view, manifesting solidarity with others	Express a comprehensive, internalised, personal world view manifesting solidarity with others	Scrutinise and reflect on social norms and relationships and act to change them	Scrutinise and reflect on social norms and relationships and lead action to change them