Qualifications, Credits, Learning Outcomes and all that ....

Education like all professions has its own language, which to the non-initiated can be both confusing and baffling. The following provides a simple jargon-busting guide to UK Higher Education Qualifications, academic levels, credits and learning outcomes.

Definitions

Qualification (Award)
A qualification, usually referred to as an award, is a public certification that a learner has successfully completed a specified set of learning outcomes with a particular purpose and of specified minimum volume of credit at particular level(s) – Table 1. Awards are thus defined in terms of the number of credits and their level.

Level
A level is an indicator of the relative difficulty, complexity, depth of study and autonomy required of a learner. At undergraduate level, which includes qualifications such as Higher National Certificates and Diplomas as well as Foundation Degrees and Honours Degrees, there are 3 levels, labelled 4, 5 and 6 - Table 7.1. In essence, level 4 refers to the first year of a full-time honours degree programme and levels 5 and 6, to the second and final years, respectively.

You are studying a Postgradute course which is at level 7.

UK Higher Education Awards

Award	Level	Minimum number of credits	Normal length of full-time programme
Cert. H.E.	4	120	1
Dip. H.E.	5	240, including 100 at level 5	2
BA/BSc Degree	6	300, including 100 at level 5 and 60 at level 6	3
BA/BSc (Hons) Degree	6	360, including 100 at level 5 and 120 at level 6 to include a dissertation/project or the equivalent module	3
MSc	7	180	1-2

Credit
Credit is a measure of the volume of learning at a particular level and, thus, a way of calibrating the relative volume of various learning outcomes. Credit points are defined in terms of the notional learning hours required to achieve a defined group of outcomes. Credit represents the outcomes of all forms of learning whether lecture-based, tutorial, work-based, research, experiential or whatever. Credit points are awarded for the achievement of appropriate learning outcomes at a particular level. One point reflects the learning outcomes achieved through 10 notional hours of learner effort, which may include work done in formal teaching situations, practical activities, research work, private study, preparation for assessment and so on.

The learning normally achieved in a year of full-time undergraduate study is equivalent to 120 credits.

Modules
All MSc programmes of study at the University of Northampton are organised within what is termed the Unified Common Modular Framework (abbreviated to UMF). A module is a discrete block of study leading to specified learning outcomes which are assessed. Each module is assigned a credit value based on the notional amount of

learner learning time and level. The level of a module is determined by its learning outcomes and assessment criteria to levels. As learners successfully complete modules they accumulate credit towards particular award.

MSc modules are 20 credits in size, requiring 200 hours of study. You need to successfully complete six (6) standard 20 credit MSc modules and the 60 credit dissertation to be awarded your MSc.

Module Specifications
Definitive document setting out the details, including learning outcomes, teaching and learning and assessment strategies for individual modules.

Award Maps
An award map is the definitive document setting out the modules which make up individual awards.

Outcome-Based Approach to Leaning

Until relatively recently the knowledge, skills and understanding which has to be learned as part of a higher education course of study has normally been specified in terms of course content or syllabus. This traditional approach defined courses in terms of what was taught, rather that what a learner can do at the end of the course. There has been a move towards an outcome based approach to teaching learning assessment. Reduced to its simplest form, an outcomes-based approach describes an award in terms of what should have been achieved if a learner has satisfactorily completed of what was previously described as course content. One of the many virtues of a learning outcome approach is that it: facilitates the Accreditation of Prior and Experiential Learning, AP(E)L, since this can be mapped against clearly stated outcomes for each module.

Learning Outcomes

As stated earlier, learning outcomes are statements that specify what learners will know or be able to do as a result of a learning activity. Outcomes are usually expressed as knowledge, skills, or attitudes and have three distinguishing characteristics.

1. The specified action by the learners must be observable.

2. The specified action by the learners must be measurable.

3. The specified action must be done by the learners.

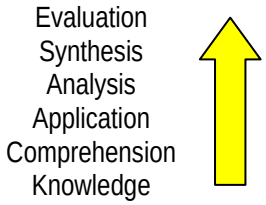
Outcomes identify important learning requirements, must be assessable and be written in the future tense. Key features of an outcome learning statement include:

- an action verb - describes what the learner will be doing.
- measurable criterion - how the learning will be evaluated.

The action verbs used in learning outcomes essentially determine the level of learning activity, ie whether level 4, 5, 6 or 7 (see Table below). Most Higher Education Institutions use Blooms taxonomy as a means of classifying learning levels.

Bloom's Taxonomy

Bloom's Taxonomy is a useful way to categorise knowledge and skills. To distinguish between basic knowledge of procedures and higher order cognitive processes, Bloom suggests that there is a hierarchy of learning from Knowledge, at the lowest level, to Evaluation, at the highest.



Action Verbs for different levels of cognitive complexity linked to Bloom's Taxonomy)

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
define	describe	apply	analyse	arrange	appraise
list	discuss	demonstrate	appraise	assemble	assess
name	explain	dramatise	calculate	collect	choose
recall	express	employ	categorise	compose	compare
record	depict	illustrate	criticise	construct	estimate
relate	locate	interpret	debate	create	evaluate
underline	recognise	operate	diagram	design	judge
label	report	practice	differentiate	formulate	measure
quote	restate	schedule	distinguish	manage	rate
locate	review	sketch	examine	organise	revise
match	translate	use	experiment	plan	score
cite			inspect	prepare	select
reproduce			question	propose	value
identify			relate	combine	defend
state			solve	integrate	justify
			test		
			classify		

Assessment & Learning Outcomes

By assessing learners it is thus possible to see whether they have achieved the learning outcomes of a module/unit and hence be granted the credits associated with it. The assessment strategy for a module/unit is therefore of fundamental importance. There is usually a range of assessment methods that reflect the outcomes being assessed. The learning and teaching strategies should give the learner an opportunity to develop the required skills to cope with assessment. For example, if assessing teamwork learners should be given the opportunity to work in groups.

Assessment criteria indicate what standard a learner should meet to demonstrate that the learning outcomes of a module/unit have been achieved. An assessment method could be a '*1500 word report*', while the assessment criteria could be a '*well structured report containing an introduction and conclusion with appropriate references and bibliography*'. The assessment criteria indicates what a learner needs to do to pass the module/unit. They should therefore be distinguished from grading criteria, which indicate how well the learner has met the assessment criteria.

Module Learning Outcomes

In order to be successfully complete a module you must demonstrate through the completion of assignments that you have met the learning outcomes associated with them. The Module Learning Outcomes are given in the appropriate Module Guide. The most important feature of a learning outcome is its action verb. Consider the following learning outcomes related to wastes management:

a. demonstrate an understanding of the sources of wastes, their nature, classification, environmental and health impacts
b. demonstrate a detailed knowledge of the chemical and physical principles underlying methodologies for reducing emissions from wastes storage, collection, treatment and disposal facilities
c. critically evaluate the hierarchy of wastes management and its applicability to the developing world

d. determine the biological and chemical processes associated with various wastes management treatments, and apply them
e. assess the key technological, economic and social factors involved in the collection/ sorting / separation processes for the segregation of wastes
f. critically assess the treatment options for a variety of waste types
g. interpret international wastes management legislation and assess its impact / influence on wastes management practices
h. explain the nature, management and use of organic and recyclable wastes
i. undertake an investigation of the viability of "alternative" waste collection, transfer, treatment and disposal strategies for a given urban location.

Clearly the action verbs determine the level of level required. Identify, describe and explain are lower levels of learning, whilst review and evaluate are higher levels of learning.

Thus wastes management can be taught at any level of learning from primary school through to masters level. The evidence required to demonstrate that a learning outcome has been achieved is also determined by its wording, as is how it is measured. Learning outcomes can be read as assignment or examination style questions, eg Describe/Explain the ….. etc. Clearly the evidence necessary to demonstrate that a given learning outcome has been achieved must reflect this.

Consider, the following learning outcome from a level 7 module:

> *Assess the technical and economic viability of sorting/separation processes for the production of an organic rich fraction from Municipal Solid Wastes (MSW)*

Assess, which is at the top of Blooms hierarchy of learning means – "*Consider the importance or value of something. Use the opinion of experts wherever possible, and give your own opinion*". So simply being able to identify, recognise or describe processes used for producing an organic rich fraction from MSW is insufficient. In order to demonstrate that this learning outcome has been met, the learner must provide evidence that they have undertaken some form of activity to determine both the financial costs and operational efficiency of a range of techniques/processes available to separate out the organic fraction.