ALLOCATION OF UNIFORM MARKS IN GCE

What is a UMS?

The Uniform Mark Scale (UMS) is used in **unitised** specifications as a device for reporting, recording and aggregating candidates' unit/component assessment outcomes.

Why do we need the UMS?

In a unitised specification candidates may take units at different stages during the course and may retake units before certification. Each exam paper is unique, and so the difficulty of exams may vary slightly from year to year. Senior examiners take this into account in deciding on the raw marks needed for particular grades. They look at samples of candidates' work from the current year and from previous years, at examiners' reports and statistical data.

For example, in one session 46 raw marks may be required for a grade E, and in the next session (because the paper is more straightforward) the E boundary may be set at 48. The UMS is used so that candidates who achieve the same standard will have the same uniform mark, irrespective of when the unit was taken.

How many uniform marks are there?

Each qualification is allocated a total uniform mark. Typically for GCE this will be 200 for a two unit qualification, 300 for a three unit qualification, 400 for a four unit qualification and 600 for a six unit qualification. The total uniform mark for the qualification is split between the units in proportion to their importance (weighting).

For example, in a specification allocated 200 uniform marks which has two equally weighted units, each unit will be allocated 100 uniform marks. However, if one unit carries three times the weight of the other, then the unit with more weighting will be allocated 150 uniform marks and the one with less weighting 50 uniform marks.

How is a raw mark converted to a uniform mark?

The range of uniform mark percentages allocated to a particular grade is the same each year:

A   80 - 100% of the total uniform marks allocated to the unit
B   70 - 79%
C   60 - 69%
D   50 - 59%
E   40 - 49%

For example, if a unit is allocated a total of 120 uniform marks then the range of uniform marks allocated to grade A would be 96 to 120 (80% of 120 to 100% of 120). Similarly, the range of uniform marks allocated to grade C would be 72 to 83 (60% of 120 to 69% of 120).

Uniform marks take into account how high the raw mark is within a grade band; the higher the raw mark, the greater the uniform mark - up to the maximum uniform mark possible for the grade. If the calculation does not produce a whole number, then the uniform mark is rounded to the nearest whole number. A raw mark of zero is allocated zero uniform marks and the maximum raw mark is allocated the total uniform mark for the unit.

A capping process is sometimes employed to allow the better performing candidates (those who do not achieve the maximum mark, but do have a raw mark well above the minimum required for grade A) to be allocated the maximum uniform mark. This compensatory device is used when the minimum raw mark required for grade A is some way below the maximum raw mark for the paper.

How is the overall subject grade determined?

The uniform marks obtained for each unit are added up and the subject grade is based on this total. For the four most commonly used subject totals, the table below shows the number of uniform marks required for each grade.

Uniform mark allocated to the subject	Subject grade awarded				
	A	B	C	D	E
200	160 - 200	140 - 159	120 - 139	100 - 119	80 - 99
300	240 – 300	210 – 239	180 – 209	150 – 179	120 – 149
400	320 - 400	280 – 319	240 – 279	200 – 239	160 – 199
600	480 - 600	420 - 479	360 - 419	300 - 359	240 - 299

Does A* at A level work in the same way?

GCE A* is awarded at subject level only – there is no A* at unit level. To obtain an A* a candidate must obtain a grade A at A level and score at least 90% of the total uniform marks available for the A2 units.

How to Calculate a UMS (Uniform Mark Scale) conversion

The following method can be applied to any given set of raw marks and any uniform mark scale to find the UMS conversion for a specific raw mark (such as the raw mark for a particular candidate). In order to calculate the conversion, you must know the grade boundaries for the subject in question for the appropriate series.

For any given grade, first calculate the number of raw marks that are available within that grade. For example, a subject has a boundary for C of 24 marks, and B of 30 marks, so grade C has six marks available (24 to 29).

Next calculate the number of marks available in the equivalent uniform mark grade. These are pre-defined across grades and represent a percentage of the overall number of UMS marks available.

Calculate a conversion factor; the number of uniform marks in the grade divided by the number of raw marks in the same grade.

Next, identify how many raw marks the candidate had scored over the raw mark boundary. Multiply this number by the conversion factor previously calculated.

Add the resulting number to the uniform mark boundary for the grade. This will be the UMS mark for the candidate, for that specific raw mark.

Example

A candidate gained a raw mark of 35 on GCE unit 9999. They achieved a grade C.
The raw mark and UMS boundaries were determined as follows:

Unit		Max mark	A*	A	B	C	D	E
9999	Raw	60	53	47	38	29	20	12
	UMS	100	90	80	70	60	50	40

There are nine marks within the C grade (29 to 37)
There are ten marks in the equivalent UMS grade C (60 to 69)
The conversion factor is therefore 10 divided by 9 which equals 1.1
The candidate achieved 6 marks over the C grade boundary (29 to 35) and so 6 multiplied by 1.1 equals 6.6, rounded to 7.
Therefore the candidate's overall UMS mark is 60 + 7 = 67.

NOTE
This document is designed to outline in broad terms the reason for using uniform marks, and to indicate how they are allocated. It does not cover all the technical aspects of their application.