Understanding and Calculating Your GPA

As you will know, SoCS MSc students require an overall GPA of 12.0 (equivalent to C3) in order to progress to the MSc Project. If your GPA from Semester 1 is below 12.0, you will require to improve your GPA in order to progress directly to the Project in June. Students who do not have a sufficient GPA to progress in June will either be allowed to progress with the requirement to successfully complete resits, or be delayed until September in order to focus on resit exams in the August diet. This decision is made on a case-by-case basis by the Programme Directors.

How is GPA calculated?

To calculate a GPA, we first establish what value each individual course grade has on the University's 22-point grade scale (https://www.gla.ac.uk/media/Media_124293_smxx.pdf). In the 22-point scale, each possible result is defined by a 'primary grade' (eg A, B, C) and a 'secondary band' (eg B1, B2, B3). So if a student has the grade of C2, the primary grade is C and the secondary band is C2.

All primary grades are made up of three secondary bands except A (five bands), G (two bands), and H (primary grade only). Each secondary band corresponds to a number on the 22-point scale. For example, a B1 has a value of 17.

Once we are aware of the correct secondary bands corresponding to the 22-point scale, these secondary bands are used for the GPA calculation. The method used in the University's Code of Assessment is to divide the number of credits available for a given course by the total number of credits being reviewed, multiply this number by the grade scale number achieved for that course, and then add the resulting numbers from this calculation for all courses together. This total is then rounded to one decimal point, producing the GPA.

Example 1: Ayesha is studying the MSc Computing Science, with 120 Taught credits.

Band	22PG	Credits	GPA value
B2	16	20	(20/120) x 16 = 2.66667
C2	13	15	(15/120) x 13 = 1.625
C1	14	15	(15/120) x 14 = 1.75
D3	9	10	(10/120) x 9 = 0.75
A5	18	10	(10/120) x 18 = 1.5
B3	15	10	(10/120) x 15 = 1.25
B1	17	10	(10/120) x 17 = 1.41667
C3	12	10	(10/120) x 12 = 1
C1	14	10	(10/120) x 14 = 1.16667
C3	12	10	(10/120) x 12 = 1

Unrounded GPA: 14.125
Final GPA: 14.1

How will resits affect the GPA?

When considering how far a given resit can improve your GPA, it is important to remember that capped resits (those resulting from a grade of D1 or below) have grade points capped at C3 (as opposed to uncapped resits resulting from MV grades, which are not capped). It is also important to remember that any improvement in a given course will be aggregated across the full 120 Taught credits.

Capping

As resits are capped at C3, the maximum improvement available in any one course is the difference between your first attempt grade and C3. For example, if Xiao has a D1 in a course, the maximum improvement available in that course is one secondary band, because he can only improve from D1 to C3 (or from 11 to 12 on the 22-point scale). On the other hand, if Xiao has an F2 in the course, he can improve by up to 8 secondary bands, because of the difference between F2 and C3 (4 to 12).

Workload and Progression

The workload required for progression is one of the factors considered by the Progression Board. The effect of capping means that the workload required for a student to progress following resits can actually be larger where a student has narrowly missed C3 in a number of courses than where a much lower grade in one course is reducing the GPA below the 12.0 threshold. For example, Tola and Mohammed both have a GPA of 11.8. Tola needs to resit four courses graded D, whereas Mohammed needs to resit only one course graded F. As a result, in order to improve the GPA to the required level, Mohammed has to prepare for one examination, whereas Tola has to prepare for four. In this illustrative example, Mohammed would be more likely to be approved for conditional progression due to the anticipated workload.

Aggregation

Any improvement in a particular course will contribute to the overall average just as it does at first sitting so, effectively, improvement in one course is 'spread out' across the full 120 Taught credits. This means that improvement in a given course often doesn't have as strong an effect on GPA as a student might expect.

As a rough guide when considering how far your GPA will be improved by a better resit performance, an improvement of three secondary bands (eg from D3 to C3) in one 10-credit course will improve a 120-credit GPA before rounding by approximately 0.25.

Example 2:

As an illustration, we will adjust one of Ayesha's results from Example 1. The original result was a D3 in a 10-credit course:

Band	**22PG**	**Credits**	**GPA value**
D3	9	10	(10/120) x 9 = 0.75

If she improves this to the capped maximum of C3, the calculation will look like this:

Band	22PG	Credits	GPA value
C3	12	10	(10/120) x 12 = 1

This improvement has added a further 0.25 to her original unrounded GPA of 14.125, making the new unrounded GPA 14.375. This is then rounded to 14.4.

Example 3:

Tom has an F2 grade in one 10-credit course:

Band	22PG	Credits	GPA value
F2	4	10	(10/120) x 4 = 0.33333

He then improves to D2 at the resit:

Band	22PG	Credits	GPA value
D2	10	10	(10/120) x 10 = 0.83333

The improvement of 6 secondary bands has resulted in an unrounded 120-credit GPA increase of 0.5.

Example 4:

Ying has an E1 in a 15-credit course:

Band	22PG	Credits	GPA value
E1	8	15	(15/120) x 8 = 1

She then improves her grade to the capped maximum of C3:

Band	22PG	Credits	GPA value
C3	12	15	(15/120) x 12 = 1.5

The improvement of four secondary bands in a 15-credit course has resulted in an unrounded 120-credit GPA increase of 0.5.

Uncapped Resits and Aggregation

If you have been delayed or conditionally progressed because you need to take uncapped resits (ie exams taken as a first sitting following an MV grade), please be cautious in calculating how your updated grades will affect your GPA.

This is because when an MV grade is awarded for a course, no credit has been awarded yet, so the credits available for a course graded MV aren't taken into account in your GPA calculation. If, after the Apr/May exams, you have both 22-point scale grades (ie A1, B2, C3 etc) and also have one or more MV grades, your GPA as it stands is calculated only from the total of completed credits with 22-point scale grades.

For example, if you have one MV grade out of 120 credits, when calculating the GPA value of a course that does have a 22-point grade, the credits available for that course are divided by 110, rather than by 120, before being multiplied by the 22-point grade number.

Example 5:

To illustrate this, we will adjust Ayesha's grades from Example 1 above. The grade of B3 in a 10-credit course has become an MV in the list below. As a result, the GPA value is calculated by dividing by 110:

Band	**22PG**	**Credits**	**GPA value**
B2	16	20	(20/110) x 16 = 2.90909
C2	13	15	(15/110) x 13 = 1.77273
C1	14	15	(15/110) x 14 = 1.90909
D3	9	10	(10/110) x 9 = 0.81818
A5	18	10	(10/110) x 18 = 1.63636
MV	15	10	N/A
B1	17	10	(10/110) x 17 = 1.54545
C3	12	10	(10/110) x 12 = 1.09091
C1	14	10	(10/110) x 14 = 1.27273
C3	12	10	(10/110) x 12 = 1.09091

Unrounded GPA: 14.04545
Final GPA: 14.0

If Ayesha takes the uncapped resit, and attains a B3 grade, then the GPA calculation is the one you see above at Example 1.

Estimating the effect of replacing MV grades on your GPA

The surest way of establishing the effect of replacing an MV grade with a given 22-point grade is to perform the full calculations you see in Examples 1 and 5 above, and compare the two. Where a student is delayed or conditionally progressed pending uncapped resits, the relevant Programme Director will perform these full calculations for each student in order to be able to advise on the level of performance required to meet the GPA threshold (unless the GPA is comfortably within the requirements, in which case students are advised simply to pass the course in order to be awarded credit).

It is more difficult to provide a rough estimate of how a given 22-point grade replacing an MV will affect your overall GPA. The principle described above, that an improvement of 3 secondary bands in a 10-credit course will provide an overall 120-credit GPA improvement of approximately 0.25 on the unrounded total, still applies in general terms. However, it is more complicated in this situation, because improvement has to be estimated against your average GPA, which is likely to be expressed using decimal points, as opposed to estimating improvement against an existing grade which is expressed in whole numbers.

So for example, if a student happens to have a GPA of exactly 11.0 (equivalent to D1) with one MV, we can safely say that replacing the MV with a C1 (14) will have the effect of improving the unrounded total by approximately 0.25. If the same student had a GPA of 10.8 and replaced the MV with a C1, the overall unrounded improvement would be slightly higher than 0.25, because the gap between the GPA and the 22-point value of the new grade is larger. Similarly, if the same student had a GPA of 11.2 and replaced the MV with a C1, the unrounded improvement would be smaller.

There are of course many variations of these scenarios which are possible. If you are in any doubt as to whether replacing an MV with a particular grade will be sufficient for progression, perform the full calculations as described above.