

### Estimating uniform marks where a candidate is absent for an examination

All JCQ awarding organisations employ the same procedure for estimating a uniform mark where a candidate is absent for an examination for an acceptable reason. The method (referred to as 'z-scores') calculates an estimate for a missing mark by comparing a candidate's performance on the units he (or she) has completed with that of all candidates who have sat those units. In the case of GCE only units at the equivalent level are used to provide an estimate of a missing uniform mark. For a missing AS mark, the estimate will be based upon the candidate's performance on the other AS unit(s) in that subject; similarly, when estimating a missing mark for an A2 unit, the estimate will be based on the candidate's performance on the other A2 unit(s) in that subject. There is no mixing of marks from different levels (i.e. AS unit marks are not used to estimate missing A2 unit marks, nor are A2 unit marks used to estimate missing AS unit marks), as the skill base and the candidature will be different for the different levels of the qualification.

For every unit a record is maintained of the average uniform mark obtained by candidates on that unit. The standard deviation is used to measure the average difference between a candidate's uniform mark and the average uniform mark for all candidates who have taken the unit. The better a candidate performs, compared with the average of all candidates, the more standard deviations his/her score will be above the mean; the worse he/she performs, the more standard deviations his/her score will be below the mean.

#### **Example 1**

***In a two unit course the average uniform mark for candidates on unit 1 is 53 and the standard deviation is 5; on unit 2 the average score is 34 uniform marks and the standard deviation is 3.***

***A candidate scores 43 uniform marks on unit one but is absent for unit two.***

<b><i>Unit</i></b>	<b><i>Average uniform mark for all candidates</i></b>	<b><i>Standard deviation for all candidates</i></b>	<b><i>Candidate's uniform mark</i></b>	<b><i>Candidate's score relative to the average score</i></b>
Unit 1	53	5	43	10 marks – that is 2 standard deviations – below the average
Unit 2	34	3	Absent	Assumed to be the same as on unit 1 – that is 2 standard deviations below the average

The missing uniform mark is estimated as 28, this mark being two standard deviation below the average mark for unit 2.

### **Example 2**

***In a three unit course the average uniform marks for all candidates are 43, 29 and 48 and the standard deviations are respectively 8, 3 and 12. The weightings associated with the units are 1:3:1; the second unit is the most important, carrying three times the weight of either of the other two units.***

***A candidate scores 51 uniform marks on unit 1, 38 marks on unit 2 and is absent for unit 3.***

Where a subject is comprised of more than two units the missing uniform mark will be based upon the average performance of the candidate on those units that he/she attempted. This average will reflect the relative importance (weighting) of the units.

<b><i>Unit</i></b>	<b><i>Weighting</i></b>	<b><i>Average uniform mark for all candidates</i></b>	<b><i>Standard deviation for all candidates</i></b>	<b><i>Candidate's uniform mark</i></b>	<b><i>Candidate's score relative to the average score</i></b>
Unit 1	1	43	8	51	8 marks – that is 1 standard deviation above the average
Unit 2	3	29	3	38	9 marks – that is 3 standard deviations above the average
Unit 3	1	48	12	Absent	Assumed to be the average of the candidate's position on the other two units – that is 2.5 standard deviations above the average*

The missing uniform mark is estimated as 78, this mark being 2.5 standard deviation above the average mark for unit 3.

\*The average is calculated as  $(1 + 3 \times 3)/4$  reflecting that the relative importance of the second unit.